

K-WERT

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KAEFER

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Editorial

Dear colleagues and friends of KAEFER,

Last year we implemented our new strategy RED to increase our competitive strength by being recognised, more efficient and different.

Not only did we promote our RED-path during the whole year, but we focused on one major component to increase our efficiency: the KAEFER Lean Journey.

By the end of 2015 we can proudly confirm, that Lean is applied on many sites in many different countries – with more and more Lean Leaders being trained and now also certified.

This edition of the K-WERT will give an extensive impression about the various projects, trainings and other aspects of Lean at KAEFER. Furthermore, you will gain an insight from an expert into the very interesting KATA-theory, since Tilo Schwarz honored us by writing one of the lead-articles in this year's edition.

But we should also not forget, that Lean is just one aspect of following our mission to support our clients' success. In RED we state that YOU and WE should work together to achieve this mission. And that is also what we would like to show in this K-WERT: our employees are our most valuable asset, thus we have taken the results of our second employee survey very seriously. At KAEFER in UK a campaign called 'YOU said-WE did' has been launched. We would like to adhere to this initiative.

This is also why we have decided to work on all means of our communication to improve it as much as possible. Consequently, this K-WERT 2015/2016 will be a turning point in the history of the magazine. As of 2016, we will publish two editions per year: one edition will have a stronger strategic approach – the other one will focus on our technical expertise and highlight even more the projects throughout the KAEFER world. Thus, making the focus of each issue more transparent and clear.

Having said so, we do not want to keep you any longer from reading the stories, news and insights in this K-WERT – enjoy and get ready for the next one! →



Looking back at 2015

An interview with Peter Hoedemaker, Steen E. Hansen and Philipp Dalheimer (Board of Directors)

PH 2015 had several highlights, among those were the successful implementation of our RED strategy and of course the welcoming of our Brazilian colleagues from RIP Serviços Industriais (RIP) into the KAEFER family. There were times I didn't think the acquisition of RIP would happen, but the hard work is really paying dividends. Not only has RIP made us much stronger as a whole, but we share so many of the same values and goals. At the beginning of 2014, for example, RIP implemented an Operational Efficiency Programme very similar to KAEFER's Lean approach.

SH Another highlight has been the way in which KAEFER employees in every region and at every level are starting to embrace the Lean culture. RED has been a key part of that.

PH The three of us have gained a lot from attending Lean training exercises over the last year. We made a commitment to attend at least two Lean activities each month, but generally we've been going to more.

"You can't understand Lean from an office."

PD In the past, when I made site visits, it was often just shaking hands and having a rushed view at many of our works. Now, when I participate in a 'waste walk', I enjoy observing in detail a given process and discussing potential improvements with the site team.

PH You can't understand Lean from behind a desk. You have to go to the sites and offices. Communication between managers and the workforce has definitely improved. We're focusing more on improving processes and performance, so that margins and the bottom-line will follow.

SH It's a cultural change, aiming to openly discuss efficiency and processes and ask KAEFER staff to constantly challenge themselves and to improve.

PD I've visited sites where people were using different tools in a team for the same work. They knew about it and had a preference for one tool, but carried on because they weren't sure how to go about making a change. To find and standardise the best tools we will involve our KAEFER employees and have first encouraging examples, I'm pleased to say.

PH I know there's also some resistance and I know staff will often try to hide their frustration when we visit, but I've seen real excitement and pride in most cases. It's often the best project managers who resist the hardest, until a week or two into a LEAN project and then it's as if they put on a pair of Lean glasses and get excited.

PD That's right. People start looking at the site in a whole new way.

"It's an important step... sending a very strong signal about our stability."

SH My highlight of 2015 was the syndicated loan. In the past, companies in the KAEFER family all dealt with local banks, but now we've signed a five-year contract with a consortium of major international banks, giving us access to cash and guarantee facilities of up to 500 million euros. It's an important step, giving us more flexibility, as well as sending a very strong signal about our stability.

PD There have been several developments along those lines. The KAEFER Scaffold Tool 2.0 is another – designed to monitor and follow stock levels in warehouses and on project sites, and the first worldwide software roll out we've done. It went well, I'm happy to say, and this means we can manage and purchase scaffolding materials much more efficiently than in the past.

Another highlight of the year is Health and Safety. The statistics continue to get better and it's been great to see initiatives in business units such as France and German Construction resulting in clear reductions of injuries with loss time. →

Looking ahead

“The focus is on working smarter.”

SH The focus is on working smarter. We're not closing the door to new acquisitions, but the next round of growth will come from finding internal efficiencies. That's why we invited PwC, a renowned advisory company, to conduct a review of our administrative processes. Generally, companies within KAEFER are well run, but the fact is, there's a lot of unnecessary duplication in the system as it currently stands. We're going to manage the changes as carefully as possible, piloting potential improvements in selected countries, before looking to roll them out across the group.

PD We have a phenomenal pool of talent at KAEFER. In part, working smarter also means improving internal communication. The culture is already changing, people becoming less territorial. I've seen many examples this year of people sharing best practices, working across disciplines and regions to fulfil the needs of our clients.

We asked ourselves how we could support this very welcome trend. One of the supporting measures will be our new intranet platform „ONE“. I'm not promising an overnight miracle, but I'm very optimistic for a number of changes to the better. On the one hand, „ONE“ will be the place to find everything I call „absolute information“ like work method statements, instruction videos, company policy statements, and so on. And then we also hope it will make it much easier for people to give feedback, find the expertise they need and share relative information in real-time.

PH Working smarter means making better use of available technology. With ONE, supervisors can find a Work Method Statement or the answer to a question at the touch of a button.

Technology is improving all the time: we have to keep up. Our clients won't settle for less. At KAEFER, we recognised this fifty years ago, with the founding of „Zentrale Technik“ nowadays Corporate Technology and Research Department.

We could imagine that in a few years, every piece of scaffolding will be fitted with a tiny sensor; the KAEFER Scaffolding Tool will become an 'intelligent' inventory, guiding you by GPS to exactly the thing you need. The same goes for intelligent insulation materials – sensors on pipes, that provide real-time analysis, could save unimaginable quantities of waste. Digitalisation will make it possible to collect and analyse really significant amounts of data.

PD I agree, absolutely. One of my goals for 2016 is to work on raising the visibility of the technical innovations we regularly deliver at KAEFER, and improving the speed at which we bring them to the market. The potential is huge.

PH And keep getting the message out in general, cleaning up and enhancing the portfolio of services we offer to existing and potential clients. There is still a lack of understanding about the difference good insulation makes and about how fast the payback time can be on the initial investment. We're doing our best to publicise the data, both as a company and as a founding member of the European Industrial Insulation Foundation.

PD The internal efficiencies Steen mentioned are really about clarity and transparency. The results of the Employee Survey highlighted lots of areas where we can get better, and was a good reminder that any changes we make have to be managed intelligently and honestly. That's how we engage KAEFER staff and get them interested in the business.

PH That's how we improve safety, working conditions generally, and our bottom line. There are challenges ahead, not the least being the global economic climate, but we're in a privileged position, operating with a fantastic workforce in an industry with plenty of potential for growth! ←

Increasing our efficiency

From January 2016 KAEFER's regional management structure will be further strengthened

As CFO Steen Hansen is stating in the BoD interview on the opposite page, when looking ahead, KAEFER needs to further grow by improving its internal efficiencies. This objective has been a top priority for the Board during the last months and several changes have been implemented accordingly.

Introduced back in 2013, the regional organisation already has shown excellent results in enhanced coordination efficiency, better knowledge exchange and support as well as the regional development. But keeping in mind the ultimate goal of our RED strategy – to increase our competitive strength by being recognised, more efficient and different – KAEFER is continuously re-evaluating processes, practices, and perspectives, based on the question: "How can we be better tomorrow?" and "How can we continuously improve what we do?"

These has now resulted in an overhaul of the regional responsibilities, further streamlining the organisation and increasing the efficiency of the regional management as well as of the group as a whole. To reduce complexity and make synergies within the group's regions and business units easier, as from

1st January 2016 the organisation will be divided into six regions and will be led by the following Regional Directors:

→ Central & Eastern Europe - Tobias Zaers

→ Construction & Marine – Sabine Manig

→ Latin America – José Silvestre

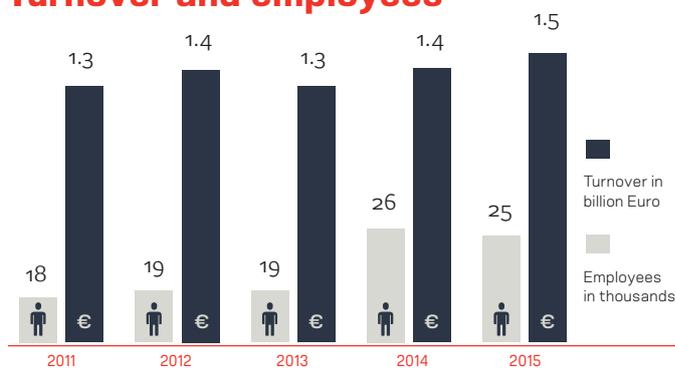
→ Middle East & South East Asia – Ramneek Datt / Australia – Justin Cooper

→ North Atlantic & Southern Africa – Karsten Gudmundset

→ Western Europe – Nils Ritterhoff

Additionally, the nomination of Justin Cooper in the newly created position of Corporate Sales Director is an important and logical consequence in developing our differentiators, sales power and being recognised. All in all, important steps in becoming more efficient and offering an even greater value to our clients. ←

Turnover and employees



Trade fairs 2016

28 – 30 June 2016

WNE (World Nuclear Exhibition)
Paris, France

September 2016

Stillasdagene 2016
Stavanger, Norway

Fall 2016

Symposium Energetyka
Bełchatów, Poland
4/Insulation
Krakow, Poland

19 – 20 October 2016

OTD (Offshore Technology Days)
Bergen, Norway

24 – 27 October 2016

Rio Oil & Gas Expo and
Conference
Rio de Janeiro, Brazil

25 – 27 October 2016

ABTCP
49^o Pulp and Paper International
Congress & Exhibition
São Paulo, Brazil

November 2016

Overflate
Bergen, Norway

ONE for all

All over the KAEFER world, colleagues are exchanging best practices, working together in expert groups and collecting information on local intranets. And soon this is happening with just ONE tool. The new global KAEFER platform is the perfect place to share, publish and collect information, and to connect with colleagues across the KAEFER world. Based on a Microsoft SharePoint 2013, with visual effects from Windows 8, ONE has been designed to unite information from all the different local intranets and further develop all potential of online communication. The roll-out will start early next year and will continue throughout 2016 in order to integrate all KAEFER countries and companies. Project Leader Nicolas Koch is confident that ONE will change the way we communicate at KAEFER.

ONE

"ONE is the solution for nearly everything related to online communication. It breaks down barriers and makes information and know-how accessible for every user."

R





PARTICIPANTS
Lean Leader Classroom-Training
October 2015

KAEFER's Lean Journey

Where is it leading? A round up of developments so far

At KAEFER, we embarked on our Lean Journey less than three years ago, hoping to improve working conditions for our staff and maximise the success of our clients. We ran the first pilot projects in 2013 with the help of external consultants, before striking out on our own in 2014. Since then, we have started to implement Lean on more than 130 KAEFER projects with tremendous success.

We judge the progress of our Lean Journey against three criteria: the process improvements made, the feedback we receive from KAEFER employees, and the feedback we receive from our clients.

Process improvements

On running Lean projects, we were able to identify and eliminate waste from our processes. In the process, project teams and Lean Leaders have jointly analysed their processes and implemented improvements, resulting in increased health and safety and increased efficiency.

We are impressed by the creativity of the project teams! Typically, process improvements are made in the sequencing of activities, optimising of material logistics, crew sizing and tooling.

Furthermore, some teams have started to involve customers and suppliers in their process improvement activities.

KAEFER Employees

Lean represents a cultural shift for KAEFER and leads to changes in work execution and site management. It would be foolish to underplay the amount of scepticism we usually encounter at the beginning of a Lean project. People worry when they hear the word 'efficiencies', and fear that an avalanche of new management terms will only lead to unrealistic management expectations.

The best way to address these concerns is to expand Lean training to reach as many people as possible. We recently conducted a Lean training on a project in Saudi Arabia. Before the training, the participating project and site managers believed that the training would "waste" their time. During the training however, their point of view changed completely and they recognized the advantages of applying Lean to work execution and site management. They realised that Lean is not another set of controls imposed from above. It is a set of tools designed to improve communication between management and workers, enabling all KAEFER staff to realise their full potential and continuously improve their own processes.

True to the motto: "If you work for Lean, Lean works for you!"

Applying Lean results in:

- Standardised, efficient work processes
- Better health and safety
- Transparent execution status
- Early identification and avoidance of problems
- Calmer workplace
- Less stress and fire fighting
- Project teams responsible for continuous process improvement

The evidence is anecdotal, of course, but the following quotes from employees in Finland are typical of the feedback we've been receiving from participants in Lean projects, indicating that we're on the right track.

"KAEFER is different because we reduce waste to stay within the schedule and budget whereas competitors can only accelerate with higher budgets to be on schedule."

"We discuss the process instead of increasing the client's budget. It is about providing more efficient processes while involving the client's planning to see deviations ahead."

"Lean gives me a better working structure and transparency to identify problems in advance."

Stephan Traudt, Head of noise control department in Germany was quoted as saying: "It's hard to imagine how people can still work without Lean."

Thiago da Silva Lucio, a welder in Brazil, said: "Lean changed my life. I am applying it at work, at home and in church activities."

The Lean Journey offers a unique development opportunity for KAEFER employees. We therefore encourage everyone who likes to develop him-/herself to join the Lean Journey and explore what Lean can do.

Our Clients

Already, KAEFER's Lean Journey is setting us apart from our competitors. When we concentrate on Lean, we concentrate on the process and on improvement. It's an approach our clients really appreciate!

In Brazil, a Lean cabin refurbishment project on the Petrobras Lote 2 platform resulted in huge, transferable improvements in efficiency. The initiative has strengthened an already close working relationship, between Petrobras and KAEFER collaborating on a joint 'Lean 500' programme, with the objective to refurbish a cabin in only 500 man hours.

In South Africa, a Lean project at the Eskom Tutuka Power Station reduced the man hours needed to erect and dismantle one ton of scaffolding by 23%. The station manager, and champion for scaffold contracts, scrutinised our data methodologies and very carefully before announcing that it was exactly what Eskom had been searching for.

In Saudi Arabia, the project team on the SADARA Off Plot

Pipeline successfully transferred best-practice know-how from a Lean 'taked production' project in Poland. The specifications and conditions in Saudi Arabia were very different but the client was quick to express satisfaction with the results of the first 'pipeline express' in the Middle East.

In France, after six years without an EDF (Électricité de France) maintenance contract in the southeast, KAEFER WANNER was awarded significant new scaffolding and insulation maintenance work. When awarding the contract, EDF management mentioned Lean as a decisive factor:

"Implementing Lean is firm positive action which fits clearly with our drive to control our costs; it shows you are taking the lead when it comes to considering our requirements; we are also seeing very specific actions that are being implemented at some sites and a positive change"

What next?

Our task now is to continue building momentum, making Lean an integral part of the KAEFER culture, and a part of everyday life for employees at all levels of the organisation and in all regions. Consequently we are going to expand our Lean training and are launching a certification programme to give line, project and site managers the opportunity to become Lean Practitioners, Lean Professionals and Lean Masters. In this way, Lean will become an important step in their career development at KAEFER. As Peter Hoedemaker said:

"If you want to grow at KAEFER, you need to become successful in applying Lean."

Lean affects us all – not just Lean Leaders and project managers – which is why we are also running a communication campaign designed to raise awareness, report on successes we can all be proud of and encourage more people to get involved. ←

LEAN WINNER

Vitor Salvador Messias being awarded by Peter Hoedemaker



Recognising our people

One of the secrets of KAEFER's success? A long-standing commitment to finding and supporting great staff.

Germany - Celebrating 80 years of KAEFER Apprenticeship

In 1935, the first of more than 1,300 apprentices (and counting) started at KAEFER. To mark the anniversary, staff, external partners and former apprentices attended the celebration in the Headquarters Bremen.

An entertaining insight into their everyday working life was provided by the latest generation of apprentices, who treated guests scenes from their time at workshops, on sites and in the office. For those who missed the excellent show, it can be watched on the KAEFER YouTube channel.

The industrial apprentices stay in Bremen for the duration of their apprenticeship and live in shared flats. KAEFER shareholder Ralf Koch adds that, not only are the young people trained on a professional level, but "our trainer also personally looks after the apprentices' social needs and help them to manage their daily life".

At the age of 14, Wolfgang Ruminski wanted to sail the seas. But when friends told him about the job as an industrial insulator, he recounted "I went to KAEFER and asked. Immediately they told me that I could start". From there – back in 1961 – he worked his way up to the position of site manager and stayed with KAEFER for 50 years. Today, Wolfgang Ruminskis children have also been working for the company for approximately 30 years.

Times may have changed, but KAEFER's commitment to apprenticeships remains as fierce as ever. It is a source of huge pride that nearly "half of the employees in Germany started as apprentices, including four of the company's most senior executives", says Chairman Peter Hoedemaker.

Breaking new ground in the search for apprentices

The high youth unemployment in Europe and the rising number of refugees offers companies the chance to recruit young, qualified and motivated professionals.

Among other things, KAEFER is involved in the state funded MobiProEU or "The job of my life", which has enabled Yadel Figueroa Montero, Sergio Martinez Correa, Carlos Uceda Guerra and Pablo Gomez Carillo from Spain, to begin their apprenticeship as an insulator in Bremen in September 2015.

The young Spaniards have applied for an apprenticeship in Germany within the framework of this programme. This was preceded by a selection procedure in Spain, an intensive language course in German, as well as a 4-week internship in our training workshop in Bremen, including a recruitment test.

When the Bremen Chamber of Commerce launched the initiative to give young refugees better access to education in December 2014, KAEFER was immediately prepared to accept social responsibility. Since then, Razy Samuel Boateng from Ghana, Ibrahim Drammeh from Gambia and Tobo Balde from Senegal have been doing a long-term internship at KAEFER, which acts as preparation for an apprenticeship in 2016. KAEFER has already had a lot of success in training a young refugee from Afghanistan. Ali Hosseini has completed his apprenticeship as an insulator with a grade 1 and is now in his 3rd apprenticeship year of industrial fitting.

Norway - Fundraising for UNICEF

Moved by the plight of child refugees, staff at KAEFER Energy recently raised NOK 76,350 (approx. € 8,000) for UNICEF. The children's charity has a



strong presence in Syria, Jordan, Iraq, Turkey and Lebanon, and operate 'child friendly spaces' and reception centres in Eastern Europe. KAEFER Energy is proud to support UNICEF, and its belief that children are children first - not refugees - regardless of where they are or what passport they carry and have an inherent right to education, health care, food and clothing.

Thank you to everyone at KAEFER for not ignoring the tough times many people are going through.

"For exemplary conduct" The KAEFER WANNER Ethics Campaign

To prosper in a globalised world, companies need to set their own values and communicate them effectively to staff and clients. Since many years KAEFER has implemented a global Code of Business Conduct and many companies have taken additional steps. This is why KAEFER WANNER has pursued its "Ethics Programme" in 2015 to inform people of their rights and responsibilities, as well as establishing Ethics Committees for each of the six business units. ←

PERFORMING ON STAGE
The apprentices at the 80 years celebration in Bremen





READY TO RUN
The KAEFER running team 2015
from Bremen

The KAEFER running team(s)

Question: How do KAEFER employees like to relax after a day spent outfitting ships, insulating nuclear power plants, constructing scaffolding towers, testing new products and administrating the company?

The answer (for many) is: *long distance running!*

From the Pattaya Mini-Marathon, known as the most beautiful on Earth, to events in Austria, France and Poland, KAEFER runners have been involved in numerous charitable events around the world.

In Spain, staff took part in the 'Interempresas Challenge' for the first time, joining in the fight against child malnutrition. In Germany, KAEFER fielded its biggest ever running team when more than 50 staff members took part in the 8th BMW

Company Run along the River Weser in Bremen. Easy to spot in their bright RED shirts, the runners completed the 5km course at their own pace before crossing the finish in a show of team spirit to cross the line together.

In Brazil, the running group competes in a whole calendar of events and trains weekly under the close supervision of a professional coach. The highlight of the RIP running year was the Fire Step Night Run, sponsored by the company and held in the city of Campinas, Sao Paulo, where 15,000 runners, including 48 from RIP took part in five and ten kilometre events, finishing in traditional Brazilian style with a party in the Heralds of Peace Square.

We are staying fit and healthy by setting personal challenges, working together in teams and supporting good causes around the world. Keep on running, KAEFER! ←



Setting new standards in fire protection

Close collaboration between different members of the KAEFER family results in innovative solutions

When KAEFER client Storengy approached us for advice on fire protection at its Peckensen gas storage facility in Germany, it quickly became clear that neither the protection objectives nor the necessary fire resistance times could possibly be achieved with conventional systems.

This was a challenge requiring close collaboration between several KAEFER companies and departments. The result? Not only did we meet the client's safety objectives, but we have ensured that maintenance projects will run more efficiently in future!

Key to our success was the development and production of the ENERGY Firecover® by KAEFER Energy in Norway and the Scheeßel workshop in Germany respectively. The project was expertly managed by KAEFER in Hannover, with the technically demanding installation carried out by the KAEFER team in Magdeburg.

Introducing the ENERGY Products®

KAEFER Energy offers a range of innovative products under the name ENERGY Products® - a registered trademark.

Based in purpose built premises, including a specialist Acoustic Research Lab in Stavanger, the team works closely with operators onsite to understand and meet the needs of clients. ENERGY Products® are focused on developing new fire-technical solutions and combating the major sources of discomfort and illness in the process industry - noise, heat and vibration. The ENERGY Products® family is composed by: ENERGY Firecover®, ENERGY Fireshield®, ENERGY Fireboard®, ENERGY Turnbed®, ENERGY SonicBarrier® and ENERGY Habitat. ENERGY Habitat is used in environments where hot work is not usually permitted, it prevents ignition sources - such as sparks - from coming into contact with flammable or explosive gases. Previously, it was often necessary to shut down production to perform hot work. ENERGY Habitat has been designed to reduce down-time on the plant. ←

Introducing - KAEFER Broadway Insulation Systems Shanghai

During an 18-year partnership with Shanghai Broadway, KAEFER has moved into a leading market position by providing cryogenic insulation to gas carriers. This has been a very strong reason for both companies to recently set up a common joint venture company – KAEFER Broadway Insulation Systems Shanghai. The aim of this JV is to further develop engineering, manufacturing and sales activities of various insulation systems as well as enlarging the scope of services for the local Chinese market. Consequently, we are now very well placed as China develops a new league of this type of ships.

Driving smarter and eliminating the energy waste – an initiative of the “Bremen Model”

In order to find new ways of working efficiently and sustainably, the Interior-Outfitting Department at KAEFER Construction took advantage of a recent offer from the car company BMW to test-drive its latest electric cars. For the month of September, eight members of the team in Bremen test-drove the BMW i3 REx. Some were sceptical at first, but were soon convinced after realising that they were able to accelerate from 0 – 100 km/h in only 7,9 seconds. With two electric cars already in constant use, Jürgen Wieters (Head of Interior-Outfitting) has calculated that the team has already saved approximately 4,5 tons of CO₂. Green, intelligent and efficient – electromobility is one more step towards a sustainable future.

Sustainability Stakeholder 2015 Survey

In July, 2015 all KAEFER employees, clients, shareholders and business partners were invited to participate in KAEFER's first Sustainability Stakeholder Survey.

According to the results, more than 90% of the participants see KAEFER as a sustainable company. The reasons given varied, with economic factors – including KAEFER's strategy, persistence and reputation being cited most often, closely followed by its commitment to energy efficiency and waste management.

One important reason behind conducting the survey was to get a clearer picture of what stakeholders expect from KAEFER.

Good quality services topped the chart, followed by environmentally conscious behaviour, transparency and fair working conditions. There were some differences in opinion among employees and external business partners here, with the former placing more emphasis on the social aspects of sustainable corporate management, and the latter regarding ecological aspects as being central.

Similarly, KAEFER employees place greatest value on the good feeling that comes from working in a responsibly managed company, while externals look first to the positive impact on a company's reputation.

But the one point everyone agrees on is that when it comes to finding out more about sustainability activities at KAEFER, the intranet and website are the best places to look.

KAEFER in the Spanish speaking world

KAEFER Servicios Industriales from Spain is forming increasingly close working relationships with sister companies in South America, often as a result of existing Spanish clients becoming involved in major infrastructure projects.

In Peru, KAEFER Spain and our Peruvian subsidiary KAEFER KOSTEC are working closely on two exciting bids, for LA PAMPILLA SAA REPSOL Refinery in Ventanilla-Callao and the modernisation of Petroperu's refinery in Talara. And there are also projects underway in Venezuela (marine) and Chile, where KAEFER is engaged in an asbestos removal project on Santiago de Chile's metro wagons.

Fit for the future – the banks agree

In the first quarter of 2015, KAEFER signed a five-year contract with a consortium of major international banks, giving us access to cash and guarantee facilities of up to € 500 million. In order to operate, a company like KAEFER needs considerable financing. In the past we have worked simultaneously with over 50 banks world-wide meaning that each KAEFER company has been negotiating credit lines with local banks and arranging very different conditions and incurring different costs.

KAEFER CFO Steen Hansen is delighted to have established a solid financing platform for the whole group. “Ultimately, it will allow us to provide a better service to our clients. They'll see that we have the resources to deliver what they need, when and where they need it!”

Given the unpredictable nature of the markets in which KAEFER operates, the agreement is a strong testament to our financial stability. Members of the consortium were particularly impressed by the many initiatives we have in place to ensure a sound and profitable future.



OPTIMISING
Scaffolding logistics solution

Pioneers in our Lean implementation

Learn more about the Lean Journey of RIP Serviços Industriais

At the beginning of 2014, RIP Serviços Industriais implemented an Operational Efficiency Programme, intended to:

- Train local managers in Lean concepts
- Identify potential areas of growth
- Optimize operational processes through pilot workshops
- Improve project delivery

The first pilot took place in January 2014 – nearly a year before the company joined KAEFER – and was a three-week project to optimise scaffold assembly that was expanded to include boiler assembly and task planning. Simply defining the parameters generated 32 areas for improvement!

By now, people were beginning to realise the potential of Lean. Representatives of the Board, General Managers, Corporate Managers and Operational Efficiency Managers attended a workshop in May 2014 and drafted a development plan to ensure a sustained and integrated transition to a Lean culture. Lean is about more than simply identifying opportunities for improvement: it is about improving channels of communication within the company and between the company and clients, some of whom participated in further pilots in September and October 2014.

In total RIP, carried out seven pilot projects in 2014, involving 78 employees and identified over 270 opportunities for improvement. Nearly 200 employees were trained on the basic principles of Lean and the ‘just-in-time’ production system.

Great minds think alike

It was at about this time that RIP joined the KAEFER family. COO Sandro Barrach, General Managers André Vilani and Américo Davoli and Operational Efficiency Manager Gustavo Frigieri travelled to Bremen last December to take part in a Lean Leader training. While the similarities in approach and values were immediately apparent, there were differences in methodology. In the first wave of RIP’s Operational Efficiency Programme, projects were carried out intensively over three-week periods. Now in KAEFER’s Lean journey, new projects are structured with more time for analysis and the careful implementation of improvements.

After extensive training - including modules on change management – the first Lean initiatives began in June in an internal logistics project and as part of a contract to repair refractory coke batteries at Companhia Siderurgica Nacional.

Following the analysis phase, these projects are now testing potential improvements. Meanwhile, Lean Leaders and Managers continue to develop their expertise by, attending internal and external training sessions and special events about Lean culture and its applications. ←





UK Strategy Statement

- > To be consistently **Recognised** as a high performing team in all aspects of our business, using **Efficient** Lean processes performed by the best people proud of their association with KAEFER and the values we uphold.
- > We are **Different**, using Lean to deliver quality integrated services and products. Making us the partner of choice for our customers and delivering excellent value to our stakeholders.



United Kingdom



United Arab Emirates



South Africa



Qatar



France



Poland



Recognised

→ Boosting our excellent reputation

Last year we embarked on our new strategy, which is focused on increasing our competitive strength by being **Recognised**, more **Efficient** and **Different** – in short: **RED**. During this year we have concentrated on Lean, which is part of the **E** (efficient) of our strategy. In 2016 we will continue this path but for instance also focus on the **D** (Different).

Other than the global initiatives, all KAEFER countries have been very active in the communication and implementation of **RED**. Many management meetings, toolbox meetings were held, as well as communication tools developed. We are all very pleased to see just how well the **RED** strategy was received by the KAEFER world! ←



TOGETHER
WE!
 COLOUR
 KAEFER RED



Brazil



Norway

RED



Germany

Efficient

→ Driving continuous improvement

Different

→ creating extra value for clients and employees



Canada



Spain



Australia & South East Asia

“Colouring KAEFER RED”

Austria – colouring KAEFER offices RED

Founded in 1969 as one of the first KAEFER foreign companies, in recent years KAEFER in Austria has grown to specialise more and more in construction. In keeping with the new focus, the team recently moved into a modern, sustainable building which draws 75% of its energy needs from renewable sources. The company move was planned according to the best Lean principles which are exact planning and preparation for efficient implementation and in this case this was achieved without the help of a removal company. In a truly impressive display of team spirit, the employees accomplished the task in the course of one weekend.

The colour RED is prominent in the new offices, while the building itself is forward-looking, reminding staff and clients alike of the KAEFER approach:

R – Recognised

as a modern and dynamic company

E – Efficient

the rooms are efficiently planned and structured. The total office space was reduced from 1.200 m² to 700 m²

D – Different

committed to KAEFER values from the ground up

KAEFER Energy benefits from Lean as part of the RED strategy

These days, oil companies are looking to reduce costs, and KAEFER Energy's client Statoil (which operates approximately 80% of the offshore installations on the Norwegian Continental Shelf) is no exception.

Three years ago, KAEFER Energy began its Lean Journey with Statoil. The pilot project which was an offshore installation carried out under the maintenance and modifications frame agreement (M&M) – resulted in significant improvements. In some service areas, the company was able to deliver the same high quality services in just half the number of man-hours!

Since then, Statoil has commented approvingly that KAEFER is becoming synonymous with Lean. There are three full-time Local Lean Leaders (LLL's) in KAEFER Energy today who lead initiatives on all eight of the offshore platforms, where the company is contracted to long term frame agreements, as well as at KAEFER Energy's main facility, where improvements to personnel management-, prefabrication-, storage- and materials and equipment logistics processes are taking place.

Last year KAEFER Energy signed a new nine-year (four plus optional three + two) contract with Statoil, an M&M frame agreement at an onshore gas processing plant. It goes without saying that an LLL was hard at work identifying scope for several Lean projects even before staff began mobilising in January.

For the last ten months, Statoil has been meeting with suppliers and looking for ways to achieve better service and cost savings. During these sessions, the company often identifies KAEFER Energy as a role model both in relation to the Lean initiative itself, and to its own direct experience of KAEFER'S commitment to continuous improvement.

In addition, thanks to recommendations from senior oil company representatives, KAEFER Energy will be speaking on best practice at four public conferences this autumn and, says KAEFER Energy CEO Bård Bjørshol: “We are very much looking forward to describing our work and taking the opportunity to thank our staff for their unflagging enthusiasm in helping to colour KAEFER RED.” ←



KAEFER IN AUSTRIA - CON.AT
Meetingroom



Best Practice – “Doing it the Lean way!”

Across the KAEFER world dozens of initiatives are taking place that are designed to make it easier for people to share information and find the expertise they need. We would like to share a few of our favourites here.

Thailand

While reading the Lean newsletter, Operations Manager in Thailand, Joergen Gentsch came across the description of a new tool developed in Poland for securing insulation mattresses. Joergen liked the idea and decided to investigate further. Eventually, he had the tool made and distributed to the HEC TLAB Project in Thailand, where it has quickly become very popular with workers. The tool has also led to efficiency gains.

South Africa

Similarly, when Heiko Habedank and Frank Jüngerhans (Regional Lean Leader and Head of the CTR Department for Thermal Insulations respectively), visited the Medupi Power Station in July to run a Lean assessment on KAEFER insulation and conduct an analysis of the cladding work process, they realised that the staff on site weren't using the best available equipment. Since then, various tools (including special ring-pliers, hooks and wire twisters) have been sourced from Europe and training sessions conducted. Lean tool posters have been designed and put up around the site to help familiarise the teams with and inform them about the changes in working practice.

France

Launched on 1 April 2015 to optimise efficiency, the KAEFER WANNER 'Magazine de petits pas' is an interactive tool, helping management and workers develop standard working practices and adapt these practices to different working environments. The monthly magazine appears on site displays and on the intranet and features links to additional information and know-how videos.

As an important addition to KAEFER WANNER's Lean programme, the title of the magazine aptly reflects the belief that continuous improvement is a journey that involves many steps: small ideas are every bit as important as major changes and have already led to several 'quick wins', including more efficient use of safety equipment. Designed as a vehicle for listening as well as for informing, the magazine encourages feedback and ideas from all employees.

Construction

The region holds regular Lean Expert Exchange (LEA*) meetings to share best practices among the different departments. A recent feedback session found that these meetings have led to a greater sense of unity within Region Construction, while at the same time clients are benefitting from enhanced transparency, more efficient execution and focussed post-project review.

The meetings and Lean in general, are helping the teams develop standardised processes across different locations. Motivation is high, with KAEFER staff at all levels engaged in achieving the goal of continuous improvement.

(*Lean Experten Austausch / Lean Expert Exchange)

Spain

KAEFER Servicios Industriales in Spain is currently running ten Lean projects in Spain and Morocco for clients from SABIC to Dow Chemical and Atlantic Copper. The projects cover a range of services including insulation, scaffolding and fire protection and have not yet come to an end, but early indications suggest that all will result in savings for the company and our clients. A key part of the Lean approach in Spain is efficient communication as exemplified by the weekly distribution of a newsletter containing all the latest information on theory and best practice.

UK

The more KAEFER knows about its clients, the better able it is to maximise their success. This is exactly the point Chairman Peter Hoedemaker made on a recent visit to the UK. Mr. Hoedemaker spent time at the client Jaguar Landrover, observing and learning from their Lean manufacturing processes, before accompanying the KAEFER site team on a waste walk and inspiring management and workers alike with examples of KAEFER best practices in places in other countries.

Following the three-day trip, which also included a visit to the E.On Ratcliffe Power Station for discussions on how Lean will improve KAEFER site operations, the new KAEFER in UK Managing Director Ian Tattersall commented that "implementing a Lean culture in the UK will significantly improve our financial performance, move KAEFER up the client value chain and help us become the service provider of choice. ←

Continuous improvement in Norway



PREFABRICATION WORKSHOP

"My job is much better now. Not so much pressure from projects when it comes to delivery dates and rush orders. This means I can spend more time in production and on quality control."

Providing a seamless, multi-national service to key client Aibel

In 2013, KAEFER in Thailand began working for Aibel (Thailand) – a subsidiary of KAEFER Energy client Aibel – on the Statoil Troll A project, by providing architectural supply, installing acoustics panels and providing additional manpower to assist another supplier with insulation. (An article on this very successful collaboration appeared in last year's K-WERT). Following completion, KAEFER in Thailand was awarded two insulation projects in 2015 from Aibel (Thailand), and is gradually emerging as the contractor of choice for insulation services and acoustics panel installation.

Laemchabang, where Aibel (Thailand) is based, is the largest and deepest harbour in the country and the only yard supplying topsides to the Norwegian continental shelf and leading providers for the platforms throughout the world.

KAEFER in Thailand began its relationship with Aibel through a referral from colleagues at KAEFER Energy in Norway. Now that the project teams in Thailand have demonstrated their ability, we expect there will be many more opportunities to work together again in the future, including on the construction of platforms for the Johan Sverdrup oil field in the North Sea. ←

Focusing on efficiency at KAEFER Energy has been a popular move with clients, and also with staff. Here, in their own words, workers and supervisors share their views on KAEFER's Lean Journey.

In the Scaffolding Warehouse...

... investment in a new cutting tool reduced the average time it takes to replace scaffolding clips for maintenance from 1 minute 40 seconds to just 15 seconds.

"We've achieved a more efficient 'day at work'. It's been a pleasure to be part of the Lean implementation."

On the Kristin platform...

... a 'waste walk' led to several small changes – notably moving storage facilities to a location nearer the work-site – resulting in a 59% improvement in scaffolding efficiency and substantially better client satisfaction scores.

"There's less running back and forth now. Much easier to find tools and material."

At the prefabrication workshop in Stavanger...

... Lean analysis identified that the MABI cutting machine was being used inefficiently. Better training, updated software and alterations to the work space have reduced the cutting time for a single tool box from over 15 minutes to less than four. On-time deliveries have risen from 59% to 100% as a result.

HVAC at KAEFER Energy

KAEFER Energy established the HVAC (heating, ventilation and air-conditioning) department in 2009 as an addition to the Interior Outfitting Division. Over the years the team has become a preferred HVAC supplier in the Norwegian oil and gas market, offering a full range of services from project management to engineering, installation and commissioning.

Recent highlights include installation of HVAC ducts and equipment for two new modules on the Troll A platform – a multi-discipline project in which KAEFER Energy handled all on-shore construction work and the offshore hook-up. Currently we are installing a new HVAC system for the cement room on the Snorre A platform. In addition, we do maintenance and modifications of HVAC systems through long-term frame contracts.

KAEFER Efficiency

KAEFER teams are contributing expertise to ground-breaking projects

KAEFER WANNER introduces the Industrial Performance Team

The Industrial Performance Team in France enjoyed a busy year, running more than 20 Lean projects, including five with consultants Lean Maritime from each of the four KAEFER WANNER branches.

Starting at the petrochemical plant TPF Arkema Carling in November 2014, the team moved round the country in 2015 looking for improvements in insulation fitting at the chemical plant TAVAUX, focussing on scaffolding and insulation at Blayais Nuclear Power Plant (NPP) and running simultaneous projects on two sites at Flamanville NPP.

Lean Leader Thierry Merel was struck by the number of similarities between each project. The initial scepticism, gradually turned to enthusiasm as workers and management began to realise the benefits of the Lean way of working. At Carling, the benefits in terms of performance, visualisation and communication among teams – led to an improvement in scaffolding from 21 hours per ton to 16 hours. At Tavaux, the time needed to fit a square metre of insulation fell from 1 hour and 13 minutes to just 35 minutes. Improvements were also seen at both Blayais and Flamanville.

“I’d like to thank the teams at each of the sites for their hard work and enthusiasm. These projects have led to better integration of branch and site management in Lean processes, more efficient and transparent reporting systems and the creation of a ‘continuous improvement’ dynamic. Above all, our capability has improved, making us more competitive”, Thierry closes.

The Industrial Performance Team is now sharing the knowledge it acquired from the experts at Lean Maritime and the KAEFER training programme, at sites across France.

Excellence in Administration

KAEFER continuously seeks efficiencies on oil platforms, construction sites, mines, power stations and at its own offices, where KAEFER invited external partner PwC to conduct a review of the main administrative processes in Germany, UK and France.

PwC has provided us with plenty of suggestions to improve upon the identification of ‘quick wins’ and recommended several more substantial changes.

We are now working on implementing these improvements, starting with pilot projects in the above mentioned countries. Our primary focus will be on demand to pay and reporting, as these offer the biggest potential for improvement, while in the medium term, we will be looking at automating the payroll and strengthening our sales activities.

Energy efficiency in Berlin

Berlin’s growing industrial sector is becoming increasingly energy conscious, resulting in new framework contract jobs for KAEFER with a focus on helping clients achieve ‘energy efficiency’, both through audits and practical measures to improve insulation.

In particular, the industrial thermal imaging team is assisting long-standing clients, including Vattenfall Europe, PCK Raffinerie, Berliner Stadtreinigung and the German Bundestag in identifying unnecessary energy waste.

The 65-strong team in Berlin is using its more than 25 years’ of experience delivering insulation solutions to reduce the costs to clients’, and the impact industry has on the environment.



EFFICIENT
the "Unidade Móvel de Funilaria Computadorizada"

Two critical shut downs in Qatar

In 2015, the team in Qatar was involved in two major shut downs, one lasting 21 days at Qatar Petroleum's (QP) NGL-3 Plant and a three-phase, 71-day shut down at the Dolphin Energy Plant in three phases with critical work being done in 28 days.

The first of these shutdowns was the biggest ever carried out by KAEFER, Descon Engineering and QP, which expanded in scope when corrosion and depletion tests necessitated additional work such as removing and installing insulation, blasting, and painting.

QP officials appreciated KAEFER efforts to meet the target dates despite the unexpected changes in project scope, praising, in particular, the accurate micro planning and the professionalism of a team that at peak times had 770 members.

During both shut downs, KAEFER Qatar implemented several Lean tools, including overall process analysis, 5R, and a manpower deployment plan. Managing Director Afzal Khan found the tools a great help. In keeping with the Lean approach, he's keen to share some of the lessons learned from these two major projects.

"People make the difference. Staff need to be trained and encouraged to share ideas on cost control. But above all, plan for the unexpected! Keep extra equipment, machinery and vehicles on stand-by. Lastly, and crucially on a shut down, mobilize a separate crew for critical path activities."

Update – Nuclear Market in Spain

KAEFER Servicios Industriales reported in the last K-WERT edition on its achievement in finally entering the nuclear market in Spain, which for years had been dominated by two competing companies.

Following the successful completion of the first project which involved designing, supplying, and installing cable trays with passive fire protection (PFP) at the Ascó Nuclear Power Plant, the team was awarded three more contracts at the Cofrentes Plant, once again for PFP, the installation of a sealing system and nuclear reflective insulation.

RIP Serviços Industriais in Brazil – first for mobile, automated cutting technology

In 1996, RIP was the first and to this day remains the only company in South America to introduce a computerised machine for tracing and cutting metal sheets. Mounted on a truck, the "Unidade Móvel de Funilaria Computadorizada" (as it's known in Brazil) is capable of producing more than 95% of the coated pieces used in thermal insulation. →



Malaysia

Shell Prelude LNG (Liquefied Natural Gas)

Located in the Browse basin northwest of Australia, Shell Prelude Floating LNG (FLNG) is a first-of-its-kind floating LNG facility that allows for the production, liquefaction, storage, and transfer of LNG at sea, and the processing and export of liquefied petroleum gas (LPG) and condensate.

At 488m long and 74m wide, the facility, slated to remain on station for 25 years without dry docking, is expected to produce 3,6 million tons per annum (mtpa) of LNG, 1,3 mtpa of condensate and 0,4 mtpa of LPG for export.

KAEFER performed insulation works on such a ground-breaking project that involves performing insulation for the main cryogenic heat exchanger.

The site is vast: the province of Saskatchewan contains 50% of the world's potash reserves, and KAEFER is working for three contractors in three different areas of the facility.

To date, KAEFER on site has worked over 20,000 hours without LTI (lost time incident), but the project has come with challenges, specifically in the form of high congestion, engineering design alterations and schedule changes.

Most projects experience a high degree of change and this is even more so the case when working for multiple clients on a single site. Nevertheless, Myles Bellefontaine, Project Manager, is pleased with how things have gone so far.

"We've really improved our planning and inventory processes. And the project planning board means supervisors, line managers and clients can get an overview of the project at a moment's notice. We're focused on continuous improvement, reviewing processes and sharing expertise within the group. The supervisors have performed brilliantly and our clients have growing confidence in KAEFER's expertise. We have one year left until scheduled completion and commissioning which will be a challenge, but I'm confident our performance will stand KAEFER in good stead for years to come."

Kuwait

Clean Fuel Project

The Clean Fuel Project in Kuwait is one of the country's largest strategic projects, designed to transform two existing refineries into a state-of-the-art, integrated, merchant refining complex thereby, increasing the overall capacity at the same time as lowering the sulphur content of petroleum products to just 5%.

SK Engineering & Construction have awarded KAEFER in Kuwait major insulation work on piping and equipment, and fire-proofing of structural steel. The project will start by the third quarter of 2016 and last approximately two years.

France

Working on the world's biggest cruise ship

After having installed more than 6,000 cabins on ten cruise ships over the last ten years, KAEFER WANNER was again awarded an contract to fit 1,253 cabins – from crew quarters on the lower decks to luxury apartments on the highest – on the world's largest cruise ship, the future 'Harmony of Seas'.

Our teams are also hard at work at the STX Shipyard in St Nazaire, insulating the impressive piping and duct networks which refrigerate and cool the ship's interior. Everyone is employing Lean working methods that were developed with STX on previous ships and are continuously reviewed in order to ensure that we keep up with the demanding schedule and cost targets! ←

Canada

Working for multiple clients on the € 985 million Legacy solution mine

Located 50km north of the city of Moose Jaw, Legacy will be the first new potash mine built in the area since the seventies. Following successful work on the Piccadilly project in Penobscis, New Brunswick, KAEFER in Canada was awarded over 20,000 square metres of insulation for equipment and tanks, 15,000 lineal metres of insulation for piping, 13,000 square metres of process ductwork, as well as pipe module tie in locations and repairs.

D



Do the KATA - Make Lean part of your daily work

by KATA-Coach Tilo Schwarze

EFFICIENT - Becoming and being “efficient by improving your daily work” is a core part of the KAEFER RED strategy. Nevertheless, any strategy will only be as good as the ability to implement it. Usually, strategic initiatives do not fail because of their definition but because of implementation. They fall away because daily business always has higher priority. They get stuck because we are not able to find the necessary solutions. The KATA focuses on making continuous improvement part of daily work on every level in the organisation and increasing everybody’s problem-solving ability so we can master exceptional challenges by involving everybody’s skill and ingenuity. The KATA is the engine which drives the improvement process.

In 2008 I was a plant manager with a German power tool manufacturer and we had been on the Lean Journey for a couple of years. Nevertheless, we were not satisfied with the results. Improvements created mainly by Lean improvement workshops and driven by the Lean team often evaporated once the Lean team moved on. We finally came to understand that improvement would only become sustainable and continuous if it were an inherent part of everybody’s daily work.

Everybody, every process, every day.

During this time I was approached by Michael, one of my department managers, who told me about a 15% decline in his department’s overall efficiency. He had identified an increase in failures in his internal logistics process as being the major reason for this. In addition, team members were complaining about the performance of their colleagues in logistics. We decided to try a new approach and give the logistics team the opportunity of improving their own process instead of conducting a Lean improvement workshop or putting the Lean experts to work on the matter.

Michael informed the team about the task to reduce errors in the logistics process. These errors were tracked with a simple sheet at each workplace. The team members at the workplaces made a mark on the sheet whenever a logistics error

occurred such as missing materials or tools. He also set up a daily meeting with the foremen of the two logistics teams. One foreman suggested tracking errors separately by shift. He argued that the other team always left the workplace in a mess at the end of their shift. He claimed that this left his team with extra work, leading to more errors. Of course, the other foreman objected heavily. Michael recognized that they were trying to determine whose fault it was and responded with: “I’m not interested in whose fault it is. You can do anything necessary to improve the process but we are not going to track failures separately by shift. Your common goal is zero marks on the error sheets. With this clear goal in mind for their process, the team spun into action. They developed an hourly logistics route for deploying material to the workplaces, which they called their bus schedule. Most amazingly, the bus route became more and more detailed while improving the process. Soon they came up with a detailed grid, divided into five-minute sequences. We would never have planned a logistics process this detailed in any workshop or lean project. But this was a schedule the team came up with themselves. Michael realised that the main obstacle for reaching the target of zero errors was not the logistics process itself. It was the ability of the two foremen to identify and systematically overcome obstacles which were hindering the process from running according to the desired bus route. He therefore started to increase their problem solving ability by coaching them. One day I was observing one of his coaching-cycles. When he asked about the actual condition, the two foremen answered: “We had a very stable first shift today. Only two tasks were five minutes late.” They then turned to me and added: “But don’t worry, Tilo, we will solve this as well”. I was stunned. Just a few weeks ago they had accused each other of leaving the workplace in a mess. Now they explained with great enthusiasm that they would handle remaining difficulties. From this experiment we learned three fundamental pre-conditions for making continuous improvement a part of everybody’s daily work.

1.



Understand
direction

2.



Grasp current-
condition

3.



Establish next
target-condition

4.



Iterate toward
target-condition

1. Improvement must have top-down priority

What do we do in a crisis situation? We insist on a daily status report. What do people learn from this behaviour? If something is really important, management asks about it on a daily basis. If we don't ask about improvement on a daily basis, other things will always have higher priority. It is always interesting to observe what a manager asks first when meeting a team member. If he asks about the day's line performance, then daily business and fire fighting will always have priority. If questions about improvement always comes last, or come up agenda once a week or once a month, improvement will never become continuous.

Michael met with the two foremen every day to discuss their progress in improving the logistics process. This set a clear priority on improving the process.

LESSON LEARNED: We need to install a top down process of short and frequent (daily) improvement talks, called coaching-cycles.

This means each manager has a 1:1 coaching cycle and the reports are focused on how to reach the next target condition. This approach sets the pace and ensures that improvement and strategy implementation have priority. Imagine if this happened at every management level throughout the organization and on a daily basis. You would be able to hear the "beat" of continuous improvement.

2. We need process targets

Suppose Michael had told the two foremen: "Your target is to increase the overall efficiency of the manufacturing process by 15%". What would they have answered? "We can't do anything about that" or "That's impossible" and they would have been right. Overall efficiency like total cost or overall productivity is influenced by many parameters that originate in different processes. This doesn't give the employees much to go on when improving their own process. Instead Michael said: "Your common goal is zero mistakes in the logistics process". He knew that this was only one parameter for improving overall efficiency, but it gave the logistics team a clear target fitted to their process. Additionally, a desired pattern for this process was added to the target, the bus route schedule. This combination is what we call target condition.

LESSON LEARNED: Set target conditions for each process not for overall output targets.

Target condition – process performance indicator + process target pattern

3. Improve people's problem-solving ability through coaching

Imagine if Michael had left the team alone with the target-condition and only checked the results. Soon, team members would have found themselves stuck and started to find excuses for why it was impossible to reach the target condition. If he had started to propose solutions and insist on exactly how to implement them, motivation would have faded. Self-motivation is directly related to self-determination.

LESSON LEARNED: We need to increase people's problem-solving ability by coaching them on how to solve problems not patronize them by giving solutions.

Coaching will ignite self-motivation and make people more self-confident when facing challenges and enable them to reach outstanding results. →



TILO SCHWARZ

Tilo Schwarz is a Management Trainer and KATA Coach who supports managers to successfully lead cultural change and make continuous improvement to their competitive advantage.

He focuses on implementing management patterns for improvement, increasing target-orientated problem solving ability within teams, and making improvement a permanent part of every-body's daily work.

While working as a plant manager at Festool GmbH, he installed the KATA as the main problem-solving and management pattern thereby establishing continuous improvement as a daily working routine throughout all processes and areas of the plant. This was the reasons why he won the lead to winning the 2008 A. T. Kearny manufacturing competition "plant of the year" and second place in the WHU/INSEAD contest "industrial excellence award" in 2011.

So how can we do this? Good problem-solving ability is like climbing a mountain. It is basically a four step approach: Have a long-term goal in mind, like the mountain peak, understand precisely where you are starting from, break the challenge down into manageable stages i.e. target-conditions and then iterate towards the next target-condition. Once the first target condition has been reached, define the next. These four elements are called the Improvement KATA.

An organization has good problem-solving ability when everybody applies the Improvement KATA. Always strive for a challenge, break down the challenge into target conditions, iterate towards the next target condition.

Memo: Why do we call it a KATA?

In martial arts, a kata is a training routine that breaks down a complex movement into a learnable sequence of steps. These steps can be taught and practiced and will ultimately lead to intuitive movement. This concept is used in many fields like music (scales), cooking (recipes) and sports (sequence of steps such as the golf swing). If we want to increase people's problem solving ability, we have to describe systematic problem solving in a simple set of steps and train these persistently. This is exactly what the four elements of the Improvement KATA are, namely, a training routine we can teach everybody.

Enabling people to reach their target condition

Becoming Lean means going beyond our experience and the established status quo, striving for challenges that are not yet possible, and finding solutions to problems nobody else has solved yet. Only then will the Lean journey become a competitive advantage. So how can we do this? It is counter intuitive. We shouldn't jump to find for solutions but, instead, understand the problem more deeply than others. Get the facts and understand the root cause. Then appropriate new solutions will emerge. This is what sets successful scientists and inventors apart. They roll up their sleeves and dig deeper into the details of what is really happening when others give up. Focusing on the root cause instead of jumping to quick solutions based on assumptions is the key to mastering challenges. How can we allow people to do this? We coach them with the Coach-

ing KATA when meeting for the daily coaching cycle. The Coaching-KATA is a set of five questions that ensures the following approach when striving for a challenge:

→ Break down the challenge – always strive for the next target condition

→ Go and see - get the facts

→ Address only one obstacle at a time and find the root cause

→ Iterate using small experiments

→ Be quick

Memo: The five questions of the Coaching-KATA

- 1) What is the target-condition for this process?
- 2) What is the actual-condition now and what did you learn from taking the last step?
- 3) Which obstacles are preventing you from reaching the target condition? Which one are you addressing now, and what exactly is the problem?
- 4) What is your next step going to be as a result, and what do you expect?
- 5) When can we go and see what we have learned from taking that step?

Using the Coaching KATA consistently on every level of the organization did set the priority on improvement and increase people's problem solving ability in my plant. Continuous improvement became a natural part of everybody's daily work and we were able to master exceptional challenges.

I can only encourage you to explore the power of the KATA. Customers will recognize the performance as processes become more and more efficient making KAEFER distinctively different from its competitors.

Do the KATA! Colour KAEFER RED! ←



TRAINED
The UK Design Scaffold Team

Innovation – “becoming better every day!”



The Asia Pacific Scaffold Management Portal (SMP)

A project to improve efficiency leads to clear competitive advantages for KAEFER.

During the implementation of a large scaffolding contract in New Caledonia, the main tool used for tracking scaffold requests and live scaffolds was a Microsoft (MS) Excel solution. Although this tool was continuously improved during the project, the disadvantages were numerous, including unconnected spreadsheets for different project aspects and the potential for incorrect data entry.

A more efficient system was required; a bespoke integrated database solution for KAEFER which would allow users to register and track the progress of scaffolding requests throughout their lifecycle and determine productivity against norms. Trials started in mid-2013 in New Caledonia and Project Manager Stewart Cameron quickly realised that it could be adapted to meet the specific needs of other projects, with thoughts turning to the APAC Region's then upcoming scaffolding project in Darwin (Ichthys SCF2 Scaffolding).

Full system development in-house started in January 2014 involving the APAC developer and key scaffolding subject matter experts. The deadline was tight; the system was required for the Darwin project's start date in April 2014. With a focus on delivering a basic core set of functions, this target was achieved and, since the initial roll-out, the system has been continuously enhanced and improved to deliver additional functionality. The system now allows users to manage scaffold rental and enter scaffold inspection information via mobile tablets. Live “dashboard” style reports provide users and management with key information on the progress of the work.

Today, the SMP is being used in the APAC Region, but plans are already underway to adapt it for contracts in other areas, with a pilot project scheduled to start in the Netherlands/Belgium in early 2016.

Access Innovations Exhibition

In August, KAEFER in the UK held a two-day working at height exhibition at one of the company's largest contract locations, showcasing best practice and many of the innovative methods. Among other highlights, attendees were treated to a demonstration by the Rope Access team of the training they do every month at KAEFER's purpose-built facility.

The team's abilities were called on recently to install safety netting in a radiologically controlled area (RCA). Where conventional alternatives such as scaffold or mobile elevating work platforms (or MEWPs) would have presented countless challenges, KAEFER's Rope Access Team erected the nets quickly and efficiently. Work below was able to continue as normal, resulting in a heavily reduced project cost.

Also on display was KAEFER's innovative rolling scaffold which was developed for a client who needed to replace roof and wall cladding in an RCA. The rolling scaffold can be erected in a safe area and pushed into place, resulting in substantial time savings.

Introducing – The UK Design Scaffold Team

The UK Design Scaffold Team was formed in 2010 to create a fully self-contained scaffolding service within KAEFER, enabling us to bid for contracts requiring in-house design while at the same time removing our reliance on outside consultants.

Under Paul Ferrand's leadership, two graduate engineers were recruited and trained over a period of 18 months in scaffolding methods. Since then the department has gone from strength to strength, doubling in size, with one team member on permanent secondment at the Sellafield site.

To date, the department has produced over 650 designs for 62 different sites, ranging from simple towers, highly complex lifting bays and rolling platforms.

Paul Ferrand is more than satisfied with the way things have developed.



"The decision – not mine – to recruit young and motivated graduate engineers was inspired. I'm so proud of the team, all of the members are highly-trained, highly competent design engineers who don't turn a hair when the site teams tell them, "but we've always done it like this'."

"The scaffold design service is forward thinking and innovative. It reduces costs and improves time efficiency"

Stuart Atkinson, Head of Sitewide Contracts (SL Intelligent Client, Access & Insulation Framework)

KAEFER in Hungary - Thermal mattress insulation for trucks

When the German government recently changed regulations for the transportation of asphalt, it presented an interesting practical challenge for KAEFER Corporate Competence Centre and KAEFER Turbine Insulation Kft. in Hungary.

As of 2015, asphalt has to be transported (generally at temperatures between 130°C and 180°C) in thermal skips. Ultimately, these will have to be purpose built, but for the time being retrofitting with front, rear and side insulation is permitted.

To meet the challenge, and guarantee a perfect fit, the insulation mattresses are designed and manufactured according to a range of requirements and conditions, including shaking, resistance to weathering, removal and reassembly.

Testing the next-generation of maintenance software in the UK

KAEFER enjoys a worldwide reputation for running projects on time and on budget. Even on relatively straightforward jobs, however, site managers and supervisors can be working from 40 different Excel spreadsheets simultaneously. It's a time consuming process, often leading to the unavoidable duplication of work.

As part of our commitment to improving performance and maximising the success of our clients, KAEFER is currently running a pilot project in the UK with a maintenance and shut down management solution designed by leading software company IAMTech.

iPlan was developed by professionals from the oil, gas, power and chemical industries who have first-hand knowledge of site maintenance management. Cutting-edge software, together with durable mobile devices, will let supervisors spend more time on site, allow real-time access to key performance indicators, and greatly enhance our ability to keep our clients' informed of progress. ←



A complete management solution for the entire project lifecycle, including:

- Job sketching
- Job detailing
- Estimation
- Materials ordering
- Variation control
- Progress recording
- Time recording
- Quality assurance

Celebrating 50 years of Corporate Technology and Research (CTR)

For 50 years, the CTR has been the ‘technical heart’ of KAEFER. To mark the anniversary, CTR Head, Marin Schouten, spent an afternoon with two of his predecessors. Arno Recknagel and Karl-Rudolf Friese enjoyed discussing the history of the department and were just as eager to hear about plans for the future.

From the very start, Karl Kaefer recognised there was more to insulation than the application of peat. His conviction that understanding the science of insulation would give his company – and clients – a competitive advantage took form in the autumn of 1965 when one of his successors founded the CTR department, or ‘Zentrale Technik’ as it was then known.

In 1981, Arno Recknagel became the third department head after Adolf Segelke and Edgar Nullmeier.

“Even, when I joined as a development engineer in 1971, the company was no longer solely focused on insulating ships. We had opened branches in northern Germany and western Germany and were working with the food industry, insulating cold stores.”

The establishment of a ‘Zentrale Technik’ department, however, was not an obvious decision. Then, as now, most insulation companies manufactured particular products or tied themselves to suppliers.

“Koch, Segelke, and Nullmeier were clever and ambitious men. They recognised that a commitment to technical excellence, to really understanding the properties of different insulation materials, would bring bigger, multi-national projects within reach.”

The 1960s were a busy time at KAEFER, as the company’s range of capabilities expanded to include heat insulation in

power stations, refineries and petrochemical plants and noise protection in factories and insulation for cold stores. The new technical department hit the ground running, assisting in the development of a system for use at cryogenic temperatures, leading to a prominent role in the insulation of liquid gas tankers. One of the first really high profile projects for the department was the development of a light, translucent ceiling for the famous stadium at the 1972 Olympic Games in Munich. Karl-Rudolf Friese, who joined the company as a project engineer in 1978, still remembers how proud his new colleagues were of their contribution to such a prestigious and technically demanding project.

“At roughly the same time, we were also working with the German Aerospace Centre (DLR) in Cologne, developing wind tunnel insulation which would make it possible to simulate supersonic flights at temperatures ranging from +50 to -190 °C. In turn, this led to work on one of the largest cryogenic wind tunnels in the world, the European Transonic Wind Tunnel (ETW).”

A project which Queen Elizabeth of Great Britain visited, shaking hands with the KAEFER engineers.

KAEFER expertise in cryogenics played a crucial role in making the transport of natural gases by land cost-effective for the first time. Demonstrating equivalent expertise in ‘hot’ insulation, the department was simultaneously hard at work on a heat shield for the three-stage European rocket.

A world-wide reputation for innovation

KAEFER’s reputation for innovation is a product of the company’s philosophy. In hindsight, investing in research and development seems a straightforward decision. At the time, however, it was often seen as risky, sometimes even as unnecessary, as Arno Recknagel acknowledges.

“No one truly expected that so much new business would come from the decision to form the ‘Zentrale Technik’ department. We were extremely fortunate that so many people at KAEFER believed in the value of what we were doing, giving us the time and resources to experiment.”

In the early years, CTR engineers had to travel to testing laboratories in Trondheim or Munich for reliable results. Gradually however, a KAEFER laboratory took shape.



Initially, a workshop and small climate chamber were installed in a large cellar on Süd Straße, with acoustics testing carried out in a World War II concrete bunker in Findorf. In 1982, these resources were brought together under one roof at the original KAEFER location in Bremen Port, where they have been steadily improved upon over the years. Used predominantly for internal projects, external companies and government agencies regularly apply to use KAEFER's state-of-the-art equipment for testing acoustics, industrial thermal insulation, fire protection, and safety equipment.

"People come for the expertise as well as the facilities," says Karl-Rudolf Friese. "Often, insulation materials are light and delicate. Accurately measuring their properties such as how they tear or break and react to heat, cold, and pressure is a complex task. Over 50 years, we've developed genuinely unique expertise. We're really good at what we do."

CTR – Working hand in hand with KAEFER teams around the world

Clients also come to KAEFER because the company offers impartial advice. Technical proposals are comprehensive – comparing the advantages and disadvantages of different solutions and materials without fear or favour.

An important milestone in the history of the CTR department came in 1982, with a bid to insulate an LNG gas liquefaction plant in Indonesia. A competitor for this crucial contract cast doubt on KAEFER's technical proposal. The client who was on the point of rejecting KAEFER's bid, agreed to send a representative to the CTR department in Bremen. Here the team ran a series of tests and aptly justified the proposal. The contract was signed.

Looking forward

The results of tests carried out at CTR flow directly into KAEFER projects around the world. In addition to finding solutions for KAEFER entities and clients, the department is committed to improving working conditions for KAEFER staff, with an ever-increasing emphasis on health and safety. Above all, the department performs a vital role in relation to quality control.

"Over the years we've earned a reputation within KAEFER for solving problems," says Marin Schouten. "When a project team or client contacts us to say a product is not performing as expected, we send someone to the site immediately, with instructions not to come back until the problem is solved. In the majority of cases, the engineer on site will work hand-in-hand with the team in Bremen to provide calculations, experimental results, and a technically sound solution in short order. As a result of our expertise and good standing at the Engineering Companies, credibility is a given."

After 50 years, one of CTR's major tasks remains trying to harmonise the technology standard around the KAEFER world. Initially, this meant convincing northern and southern Germany, whereas nowadays the company operates in over 40 countries and nearly as many languages. In recent years, a lot of hard work has gone into establishing a network of expert groups from the KAEFER entities which support this role.

As the KAEFER family continues to grow, one of the many projects in Marin Schouten's in-tray is making sure that everyone in the company is aware of what a valuable resource they have in CTR! ←

CTR Innovation

CTR is expanding the KAEFER product portfolio by moving into the area of Pre Insulation for Fire Protection.

Up until now, KAEFER Pre Insulation could only be used on the outside of liquid gas plants/facilities because the inside of the gas liquefaction plants themselves require an increased fire protection.

In our laboratory in Bremen, the Pre-Insulation System has now been optimised so much, that the fire resistance time lies at 60 minutes or higher.

For this, we used a glass-reinforced resin, which acts as an intumescent. In the case of a fire, the fibre glass compound converts into an insulation cover which opposes the fire.

This means that KAEFER pre-insulation can now also be implemented in 'hot' areas, where, in the case of fire, every millimetre of intumescent grants valuable time.

The newest product from the fire protection field – KAEFER Pre-Insulation H60 – was introduced in October 2015 at the Gastech Conference in Singapore. If you would like more information, please contact CTR !

ctr@kaefer.com



Heads of the Corporate Technology & Research department:

1965 – 1966 Klaus Segelke

1966 – 1981 Edgar Nullmeier

1981 – 1991 Arno Recknagel

1991 – 2002 Karl-Rudolf Friese

2002 – 2007 Dr. Holger Cartsborg

2008 – today Marin Schouten

Our People stories



OPEN NOW
The Saving Grace Mission
Preschool & Crèche

South Africa

"It's in your hands to make a difference."
Nelson Mandela

On the July 18, many South Africans mark Nelson Mandela's birthday by donating 67 minutes to a good cause to honour the 67 years 'Tata Madiba' dedicated to serving his people. This year, KAEFER employees donated clothes, food parcels, nappies, and other essentials for use at the various family homes and safe houses run by the charity COMPASS. An enthusiastic team of KAEFER volunteers also spent far more than '67minutes' at one of the homes, chatting to the residents and playing with the children. Another highlight in July was the opening of the Saving Grace Mission Preschool & Crèche in Rooikoppen. The project was financed by KAEFER and jointly managed by our site manager at Tutuka, Elliot Mhlongo. Education is a subject close to the heart of many KAEFER employees which is why we also donated desks and chairs to the Ulwazi and Matalza Primary Schools and computers to Sunninghill High.

Supporting our Nepalese employees

Of the 1,000 Nepalese working for KAEFER in the Middle East more than 200 were directly affected by the terrible earthquake in April this year. Management in the region responded immediately by, forming an emergency committee to provide Nepalese employees with the resources to call family members, offering time away from work, helping on the spot and identifying any further requirements. Employees from across KAEFER was also eager to help and responded generously to a KAEFER FOUNDATION appeal for donations and launched initiatives of their own. In Bremen, 20 runners took part in the city's Night Run raising money for the affected, while our colleagues in Mexico encouraged donations by printing badges with the motto 'Yo Doné', or 'I've donated'. The consequences of the earthquake will be felt for many years to come, but thanks to generosity of people at KAEFER, we will continue to offer our sustained support.



SUPPORTING
Madan Puri (with sunglasses) of
KAEFER UAE in front of the temporary
learning centre built by volunteers in
Sunkoshi, Nepal.



Cine em Cena in Brazil

Brazil is the largest country in South America and the fourth largest in the world. The word 'remote' takes on a whole new meaning when describing parts of Brazil, as many RIP employees know!

A very good reason to sponsor the Cine em Cena 'travelling cinema'. The customised lorry has reached more than 8,000 people so far. Viewings are free, the screen is mounted on the lorry bed, and there is an air-conditioned structure assembled around it at each location.

ENJOYING THE MOVIES
The audition at the Cine em Cena in Brazil

A Day for Shareholders

Since 2004, KAEFER's "Young Shareholders" have been meeting roughly every two years in different places, in order to obtain a first-hand impression of the activities and projects and, of course, in order to acquaint themselves with the employees. This year the journey led them to Berlin, to the branch of KAEFER Construction. In the German capital, the construction team works on very demanding worksites. It was here that the shareholders had an opportunity to have a peek into what goes on behind the scenes, for example in a showroom at the „Berliner Stadtschloss“. As well as the building site visit, the construction of a dry wall was also on the agenda. This was a chance for everyone involved to prove their skill and also an opportunity to attain useful Know-How! The almost obligatory trip to the German Reichstag acted as the perfect background setting for the group picture.

VISITING
The „Young Shareholders“
at the German Reichstag in Berlin



Saudi Arabia "Together we create a healthy community"

Health Check
KAEFER in Saudi Arabia organised a Medical Camp in KAEFER offices across the country and provided free medical examinations to more than 2,000 people. Many KAEFER employees volunteered to help run the camps, which provided advice on health issues as well as direct medical care.

Iftar
Also in Saudi Arabia, KAEFER hosted the annual Iftar dinner celebration for employees. The Iftar is the evening meal after sunset which concludes daily fasting during the month of Ramadan. It is a time to reflect on humanity and to reaffirm our commitment to helping the less fortunate. KAEFER in Saudi Arabia invited all its employees to attend this party regardless of religion or nationality, reflecting our belief that "whatever our faith, we're all one family".

'Plan Familia'

KAEFER in Spain is proud to support employees affected by disability at home. In co-operation with the Adecco Foundation, we are committed to helping disabled people back into the workforce, as well as providing the family with information, assessment, therapy, and a break from the full-time responsibilities of care. ←



True north of KAEFER's Lean Journey

True North is a compass heading, guiding KAEFER from our current location to the place we want to be.

On KAEFER's Lean Journey we strive to create client value by continuously improving towards waste free processes.

It is our objective to deliver our services to our customers without any incidents, on time and in the most cost-efficient way. This includes providing our services right the first time, according to our clients' quality requirements.

In order to meet this objective we ...

- Build health and safety into processes and use the most secure and efficient work methods and tooling
- Create a stable flow of work, without interruptions or long waiting times
- Work with optimal crew sizes, so that everybody can add value at all times
- Ensure that the required material is available (right piece, right time, right place, right quantity, right quality)
- Get it right the first time
- Use visual controls to compare actual process performance to expected performance including safety, on-time delivery, productivity and quality
- Do a proper root cause analysis in case of performance deviations in order to stabilize and further improve the process

We can become better every day. Therefore we are routinely analysing and improving our processes towards the next target condition. Managers are coaching their teams to strengthen their problem solving capabilities and confidence as a base for this continuous process improvement routine and culture. Striving for the True North is part of our KAEFER strategy to increase our competitive strength, by being recognised, more efficient and different. →

Get out of the office and Go Gemba!

Gemba, Japanese for 'the real place', refers to the site where value is created. We believe that bringing management and workers together on the worksite is the most effective way to eliminate waste and discover opportunities for process improvement. Gemba visits, also known as 'waste walks', are not scripted. Rather, they are an opportunity to understand the work, ask questions, and learn.

Lean Lessons Learned

Our Lean Leaders believe the success of KAEFER's Lean Journey rests on applying the same careful analysis to their own methods as they bring to Lean projects, sharing their experiences from around the world.

Anyone working on a Lean project will certainly have heard the terms 'flow', 'takt', 'pull' and 'zero faults' by now!

Lean isn't just a set of tools. It's a new way of looking at processes, with a new language to describe them.

Lean in Canada

Eric Ludwig, Operations Manager and Lean Leader for the CNRL Series 40 Pipeline project in Bonnyville, Alberta, saw a 22% increase in productivity as a result the introduction of a new method of using insulation tie wire, expanding the use of mobile fabrication shops and supplying battery operated shears. He also encountered substantial resistance when it came to takt.

"Takt is vital. Properly implemented, it helps avoid delays, reduces inventory exposed to the elements, and put clearer emphasis on crucial, value-adding tasks."

But KAEFER employees were sceptical, however, worried the new system would undermine flexibility. For Eric, patience was the key.

"It's all very well saying we'll make the work easier and more sustainable, but it wasn't until I ran a demonstration, using multiple test sections, that I started to overcome resistance."

After each test section, Eric made sure to ask for feedback, addressing workers' concerns and integrating suggestions into the new system.

Lean in Poland

"Ultimately, it's the workforce who will make KAEFER truly Lean," says Lean Leader Miroslaw Chodzikiwicz.

"Our job is to make sure people have the proper time and support. Give them the confidence to come forward with their own ideas and push for improved processes. We used to spend a lot of time talking about scaffold installation procedures with the HSE department at the Polaniec Power Plant, until we suggested a manual to set out an agreed set of procedures. The process runs so smoothly now, that our client has made it the standard for all companies working at the plant."

Lean in the Middle East

"Lean isn't a top-down process," agrees Ravi Prakash, Local Lean Leader in Saudi Arabia.

"The temptation is to take over and simply do the improvements, but that way the basic Lean concepts will be forgotten as soon as I move to another project. Now, when we start a Lean project we try to reverse the flow of information, asking for the ideas and best practices of our employees. They're the people who know the work after all, but we can't expect them to pick up Lean as they go along. They need training which means time away from the workplace, which can make our site managers and clients nervous. It's a question of trust initially, until the improvements in productivity start materialising."

Lean in South Africa

For Contract Manager Rennie Chetty, Lean means better trained staff and a concrete process in place to make sure lessons are learned from every project.

"We recently completed a major shut-down at SAPREF, including scaffold erection (1,682 tons in 42 days) and dismantle; removal and replacement of hot and cold insulation; grit blasting, paint and thermal spray applications. The tight schedule meant fatigue was a constant concern. We had problems getting the correct mix of scaffolding material, as well as a complete plan for the sequence of scaffold requirements. And then, of course, many of our most experienced workers are currently working on the Medupi and Kusile Mega Projects, which meant taking on an additional 200 employees."

"But the project went well, thanks to a truly exceptional performance from the core crews. Good use of Planning and Performance Management (PPM) boards meant our supervisors could see the big picture which gave them control of their work and teams and the confidence to maintain a dialogue with their managers. But the real strength of Lean lies in what comes next, namely the proper analysis and the resources to make sure we're even better next time round!"

Tips from our experts

1. Applying Lean to proposals

ERIC LUDWIG
Operations Manager, KAEFER in Canada

Improving the efficiency of supporting activities can make a real difference to the bottom line of a project. In a competitive environment, this can be the difference between winning and losing a contract.

- When budgeting, break out the supporting activities so they are clearly separate from the actual application effort
- During the analysis phase of the tendering process, identify key areas for improvement and quantify the potential impact

2. Go the extra mile

ROB ROSS
Operation Director of KAEFER Thermal South Africa

Lean places emphasis on continuous improvement and on the bottom line. Internally, there was some scepticism when we ran a Lean project on work executed on a cost reimbursable basis, meaning KAEFER would not receive any direct benefit from savings in efficiency. But now our relationship with this key client has never been better, with the prospect of additional contracts ahead.

3. Sustained support and training

RAVI PRAKASH
Local Lean Leader, KAEFER in Saudi Arabia

“We need to serve up the Lean concept as a delicious scoop of ice cream rather than an additional burden” Initially, the workforce in Saudi Arabia was worried that Lean meant additional work and unrealistic management expectations. The best way to overcome scepticism is through demonstrating the effectiveness of Lean principles. Strong and consistent awareness campaigns also play an important role in effecting cultural change. Initiatives that have worked well for us include:

- The Lean quiz is an entertaining way of sharing knowledge.
- Lean posters onsite and offsite keep concepts such as 5S and 5R top-of-minds
- Lean stickers on safety helmets, Lean logo on the back of coveralls
- Ensuring that Lean topics are always on the agenda at daily tool-box-talk meetings.

4. Think about the physical space

MIROSLAW CHODZIKIEWICZ
Local Lean Leader, KAEFER SA Poland

Something as simple as poor lighting or labelling can have a major impact on efficiency, which is why the ‘waste walk’ is such a powerful tool.

At the prefabrication workshop in Plock we achieved measurable gains in efficiency, as well as better working conditions by rearranging the machinery to better allow for the transport of materials and finished products. Similarly, on a thermal insulation project, we introduced the concept of 5S and a dedicated storekeeper and logistics team. The impact on the smooth-running of the project has been significant. ←

HSE at a glance – man-hours without lost time incidents in millions



* Australia: KAEFER: 1.9 mill. man-hours w/o LTI
+ KAEFER Novacoat: 740,000 man-hours w/o LTI
Singapore: KAEFER: 650,000 man-hours w/o LTI
+ Prostar Marine: 1.1 mill. man-hours w/o LTI
The overview shows countries with more than 1 mill. manhours w/o LTI



14.4 Thailand

1.4 Kuwait

1.2 Malaysia

1.1 Indonesia

1.8* Singapore

2.1 New Caledonia

2.6* Australia

Health and Safety

Following a successful global Health & Safety Campaign in 2012, awareness of the issue is already excellent at KAEFER. This is no reason for complacency, however, which is why the company is currently rolling out a Safety Culture Campaign. Pilot projects have already started in the UK, Poland and Germany, and the campaign will be implemented globally in 2016.

In the meantime, we want to take the opportunity to highlight some of 2015's very impressive regional initiatives.

Safety Day in France

The year in France got off to a flying start in January with a day devoted to all aspects of Health and Safety. We informed staff across all sites, workshops and offices of our record in 2014 and plans to improve in 2015. The programme, which in some cases runs with the active participation of our clients, ended with all the employees signing a banner as a symbol of their commitment to safety in the workplace.

Throughout the year, we regularly reminded employees of vital safety rules and informed them of any occurrence via a 'safety alert', to keep people informed and reinforce relevant procedures. We also took steps to improve our reporting process. Now, as part of his standard response, the local manager will inform the KAEFER WANNER president directly if an accident should occur, maximising engagement with investigative procedures at every level of the company. Together with an extensive programme of behavioural safety visits undertaken by all managers up to and including the president, all of these initiatives have led to a 44% reduction in workplace accidents at KAEFER WANNER in the first eight months!

Sky's the limit in the UAE!

On 31 August 2015, KAEFER LLC in the UAE completed 29,305,118 man-hours without LTI; a period calculated from 14 January 2008 and covering scaffolding projects, hot and cold insulation, fire proofing, refractory, painting and blasting.

This superb achievement is the result of comprehensive safety inductions and training, awareness programmes, safety evaluation meetings, and employee motivational campaigns.

The next target is to reach 30 million man-hours without LTI in the UAE. Following our motto – "I care, you care, we care" – we're confident we'll get there towards the end of 2015.

HSEQL Campaign in South Africa

Launched as part of the global RED strategy, a nine-month campaign focussed on Health, Safety, Quality, the Environment, and on Lean. The campaign was run as a series of competitions, with KAEFER employees answering questions on the above topics. Winners were selected at random from among the correct entries, with the lucky winners receiving prizes.

Working together brings benefits in Brazil

Since 2004, the Fique de Olho, or 'Keep an Eye' campaign, encourages all RIP Serviços Industriais employees to suggest improvements and be vigilant when it comes to eliminating potential risks.

In its first four years, the Fique de Olho campaign resulted in substantial year-on-year reductions in workplace incidents. The programme was such a success that it was expanded to include quality, environment, and administrative procedures in 2008. Encouraging employees at every level to come forward and suggest potential improvements has become part of the culture at RIP, a great advantage as we embark on our Lean Journey.

KAEFER Turbine Insulation (KTI) Kft. in Kecskemét, Hungary

was founded by the Corporate Competence Centre, Mattresses and Materials (CCCM) in May 2012 to fabricate mattresses for the turbine market.

With an international client base (including Siemens and General Electric) and ultimate responsibility resting with CCCM in Bremen, KTI adheres to the strictest national and international Health and Safety standards, and received glowing HSE reports in the first two years of its existence.

Believing there was still room for improvement, the company hired external consultants in December 2014, to help reduce the number of incidents still further, to do more for the welfare of employees, and to place new emphasis on environmental protection. →

**Together we
can realise the
KAEFER goal
of zero incidents
and accidents!**



WORKING TOGETHER
at the annual HSEQ-Meeting,
11/2015 in Bremen



Four steps to a better workplace

- Report – Employees suggest improvements on specially designed coupons
- Evaluation

- Reward – Because good ideas lead to success!
- Implementation of improved processes

Expertise and Quality in dry-walling

Learning from the 10 most frequent mistakes in our market

KAEFER Construction GmbH held a workshop in the summer to evaluate the Top Ten Mistakes in dry walling and from this a seminar was devised, during which the participants had the chance to improve their skills and know-how and to learn how to avoid these mistakes.

Every employee from Interior Outfitting in Bremen was involved in the workshop. Together, the crew worked on sub-structures, expansion joints and smoothed dry-walls in order to discover the most common mistakes. Once these were identified, they developed a master plan in dry walling.

To increase the learning outcomes, a booklet was published and is now available from KAEFER Construction.

construction@kaefer.com

In addition, a seminar will be launched in the Region Construction for a continuous improvement process.

With this initiative of the "Bremen Model" and our partner Rigips, KAEFER has once again proved that efficiency and improving our know-how are not only a theoretical part of our strategy, but apply to our every-day life.



"HANDS ON"



Quality – client satisfaction goes a long way!

Vietnam

In 2015, KAEFER in Vietnam was awarded a sulphur burner refractory contract from TSK Engineering (Thailand) Co. Ltd. This contract came about as a result of the successful working relationship KAEFER already enjoys with TSK in Thailand and is another fine example of repeat business made possible by KAEFER's cross-border expertise in the APAC North region.

Spain

In Spain, Dow Chemical wrote to express its satisfaction with KAEFER employees at the Tarragona plant. In particular, Dow admired the dedication, efficiency, and professionalism demonstrated. The Environment, Health, and Safety delivery leader for Dow Chemical in the region wrote that: "It is employees like these who add the value to a service company like KAEFER".

Germany

KAEFER has now been working for Airbus for over 30 years. In 2015, the Region Construction acquired a frame contract, which is valid for the next three years with the option to

extend it up to five years. Airbus AG agreed to a contract with KSW GmbH, with Construction being one of six shareholders. Therefore Construction is performing services on behalf of KSW GmbH. The contract includes everything from new construction and restoration to maintenance. It goes without saying that Airbus has the highest standards when it comes to quality, health and safety, and process reliability. This is yet further confirmation that KAEFER meets the requirements and is incentivised to become better every day.

Partner of the Year 2014

In a ceremony, NEPTUN WERFT in Rostock-Warnemünde honoured KAEFER Schiffsbausbau GmbH NL Rostock as "Partner of the Year 2014"

This year, for the first time, suppliers who have distinguished themselves through their excellence received recognition in the shape of an award.

It highlights the importance of the partnership between suppliers and the shipyard, who have built more than 60 ships on the NEPTUN WERFT in the recent years.

The three victorious companies prevailed against 740 other competitors. ←





UNDER CONSTRUCTION
the Fashion Outlet Montabaur

The secret of success is good preparation: Lean construction management

At the Fashion Outlet Montabaur

Before making a decisive step, you should give it some thought and make it as Lean as possible. Visualisations help to keep track.“ Project manager Uwe Kremling stated. A simple sentence with a powerful impact. With really only three people involved, this complex expansion project has a contract fee of around € 3.5 million. From the very beginning, Freddy Klein has been referred to as a site manager and Edwin Rosensträter as a working student. Klaus Machleid, as additional site manager, has been working with the team in the final phase bringing the total to four. Together the team supervised several subcontractors. The challenge was that the client moved up the opening by around 14 days to 30th July 2015.

How can a complex expansion project be successfully pulled off?

First of all, the staff is top priority. “Freddy Klein has shown a great deal of commitment,” praises project manager Uwe Kremling. Another prerequisite is intense preparation and intelligent planning. In these areas the new Lean methods were applied here for the first time. “We had two weeks in which to delve into the project, and we had an extra man who researched the information and determined the steps to be tak-

en,” says the project manager about his student. „Then we got to our first performance matrix. Right up to the last stretch we knew where we had to apply ourselves. Thanks to the Lean-project approach, we knew exactly what, when, and how much to expect.”

The subcontractors received detailed documentation and instructions. The planning board was used internally for forward planning and organization. Freddy Klein informed the subcontractors and third-party providers.

Planning with foresight works well in routine process sequences (operations) - as in the stores for the FOC. Small-scale shop extensions towards the end, additional services, and special requests made it necessary for the team to search for new methods. A creative tool was also discovered here which was the visualisation of the work packages by trades on the plan. This always made it clear where each trade should be, when the job should be finished, and so on.

“The application of Lean techniques promotes our creativity and advances us!” Uwe Kremling concludes, later adding that working with Regional Lean Leader Torsten Hass added huge value to the project. “He’s just someone who actually has experience, moderates well, and always asks the right questions.” ←

Project-Highlights



SADARA Chemical Company, a joint venture of Saudi Aramco and The Dow Chemical Company, come together to make the world's largest chemical complex ever built in a single phase in Jubail Industrial city, in Saudi Arabia, with 26 integrated world-scale manufacturing plants that will produce more than three million tons of capacity per annum and an investment of about € 18 billion. SADARA will be a Fortune 500 company within the first year of full operation. KAEFER's scope span from supply of material, access designs, industrial application of specialized services and supply of men & machinery. SADARA extended KAEFER its most challenging project execution experience with over 1,400 people workforce at peak, spread across 13 different project locations at an equally strenuous terrain and climate coupled with a very stringent safety and quality parameters. KAEFER started executing various projects in SADARA by mid of 2013 which will continue until mid of 2016.

Total value

150,513 Mio SAR.

Scope of work

Insulation - 273,444 Sqm

Fire Proofing - 44,797 Sqm

Scaffolding - 52,461 Sqm

Industrial Coating - 116,454 Sqm

Refractory - 130 Ton

Schedule

June 2013 to Aug 2014.



Erber Campus: New Building

Owner

Erber AG

Location

Getzersdorf, Austria

Executing company

KAEFER Isoliertechnik
Ges.m.b.H

Time frame

2013 - 2015

Scope of work/Description

2,300 m² plasterboard walls

3,200 m² facing layers

700 m² metal ceilings

500 m² plasterboard ceilings

1,000 m² acoustic panels

600 pc. window frames incl.
shading



CSN Refractory Repair

Owner

CSN – Companhia Siderúrgica
Nacional

Location

Volta Redonda, Rio – Brazil

Executing company

RIP – Serviços Industriais
Ltda.

Scope of work

Refractory and Mechanical
Assembly

Time frame

04/2015 – 04/2017

Man hours

ca. 4 mill.

Description

Refractory repair on hot
condition of 108 furnace
walls of batteries 4A, 4B and
5.

13,474 ton refractory

1,648 chambers to repair



Big insulation contract at Medupi Power Station in South Africa

Owner

Mitsubishi Hitachi Power
Systems Africa (MHPSA)

Location

Lephalale, Limpopo Province,
South Africa

Executing company

KAEFER Energy Projects
(PTY) Ltd.

Scope of work

Insulation

Time frame

2014 - current

Man hours

ca. 720,000

Description

Provide heat and sound
insulation at Medupi Power
Station for
Boiler Units 6 through 1
171,299m² insulation works.
Medupi is a greenfield
coal-fired power plant and the
fourth dry-cooled, baseload
station built in 20 years by
Eskom after Kendal, Matimba
and Majuba power stations.
The name “Medupi” is a
Sepedi word which means
“rain that soaks parched
lands, giving economic relief”.
The power station will be the
fourth largest coal plant in
the southern hemisphere, and
will be the biggest dry-cooled
power station in the world.
The planned operational life
of the station is 50 years.



Long term ISS main- tenance contract at Kårstø plant

Owner/Client

Statoil

Location

Norway

Executing company

KAEFER Energy

Scope of work

Insulation, scaffolding, rope
access, surface protection
and habitat services at the
Kårstø plant

Time frame

2014 - 2023

Man hours

ca. 130,000

Description

The contract was won in
competition with other major
players in the ISS industry.
Risk management, HSE work,
the selection of technology
and the implementation
model for maintenance are all
important elements that led
to the choice of KAEFER
Energy. KAEFER Energy
already performs the
equivalent ISS maintenance
work on many of Statoil's
offshore installations. The
contract is also a confirma-
tion that KAEFER Energy
keeps good quality on the
deliveries

Photo: Kårstø plant

Øyvind Hagen - Statoil Kårstø



Moomba Expansion Project

Owner

Santos

Location

Cooper Basin, South Australia

Executing company

KAEFER Integrated Services
Pty Ltd

Scope of work:

Painting, scaffolding, insula-
tion, asbestos removal, refrac-
tory and fireproofing

Time frame

2014 - 2017

Man hours

ca. 8,000 – 10,000 per month

Description

KAEFER provides both fixed
price and maintenance
industrial services to five
Santos Divisions (Santos
Moomba Projects / Shut-
downs, Moomba Mainte-
nance, Upstream SA
Maintenance, SW Qld
Maintenance & Port
Bonython Projects). We have
approximately 45-50
operatives on a back to back
rotation servicing Santos. We
are increasing our service
capability to include vessel &
fire watchers along with
confined space entry watcher
operatives.

Congratulations!



Jürgen Ahlvers

After training as a gas and water plumber, Mr. Ahlvers began his KAEFER career in cold storage construction in Hannover. After about 3 years in this department, the construction management followed technical insulation to the medical university in Hannover, before activity in the sound sector was continued. Subsequently, the construction management, who have been successful for over 20 years, ensued waste incineration in Hameln.



Jan Baluś

completed the Basic Vocational School of Construction Crafts for Working Adults at PRT Termoizolacja in Zabrze, branch in Oświęcim, as a construction insulator. Initially, he worked as an insulator, sheet metal worker and foreman. In 1997, he was promoted to the position of construction manager at Łaziska Power Plant. Since 1999, he has held the position of construction manager and worked on numerous overseas contracts. Recently, he managed a construction at Neurath, Germany. Currently, he is very active at the domestic construction sites of the Oświęcim branch. Jan has a happy family with his wife Urszula, their children and grandchildren. He spends his leisure time in the outdoors, he loves fishing.



Thomas Boßel

was born in Hamburg on 25.08.1959 and trained as an insulator with KAEFER Isolertechnik between 1975 and 1978. Thomas returned to the company after completing military service, working on numerous construction sites in Germany, Sweden and the Netherlands.



Michael Erhart

trained at KAEFER as an industrial insulator between 1975 and 1978. Subsequently, he was appointed to several different project sites, including the Lauswart and Flingern power plants. After military service, he joined Bayer as a plumber in the prefabrication workshop at the construction site in Dormagen, working his way up to the position of foreman. Since 1998, Michael has been working for KAEFER, initially as a project manager on the permanent crude oil construction site in Dormagen. Since 2000, he has been the principle project manager on our construction site in the Chempark in Dormagen (2015 turnover: 4.0 million euros). Additionally, between 2001 and 2012, he was the coordinator for SKM GmbH, for the SKM committee/Kiel pipeline construction, insulation, scaffolding and corrosion protection.



Marian Franke

trained at KAEFER between 1975 and 1978 as an industrial insulator. After working on various project sites, including the Lauswart and Fligern power plants, he was employed as a plumber in the prefabrication workshop for Bayer in Leverkusen. From 1996, he took on the same role at the new construction site for a permanent crude oil site in Dormagen. Since 2002, he has been working as a foreman in the expanded site management team at our long-term building site in Chempark Dormagen.



Anke Gregorzewski

After she started her apprenticeship in industrial management at KAEFER in November 1975, she worked in the materials logistics and general services. For many years since, Anke Gregorzewski has been creatively and successfully engaged in the communication department in Germany.



Herbet Hilgen

began his career on 08.12.1975 as an installer. Then he became project manager in Oldenburg, before coming to Bremen and demonstrating his expansive knowledge in the fields of prefabrication, heat, cold, facades, containers and vessels. In the industry, Herbert is known as the 'man for every job'. He exemplifies 'the fireman attitude', meaning that he accepts and completes all projects without ifs or buts. Also featured in his CV are operations in Eastern Europe and major projects in the Netherlands.



Andrzej Gworek

is a long-term experienced worker from Termoizolacja. Currently, he works for KAEFER, managing teams of workers at domestic construction sites. He used to work at numerous international sites, including sites in France and Germany. Andrzej is a happy husband, father and grandfather.



Thomas Kolwe

celebrated his 40 years at KAEFER Schiffsausbau (Shipbuilding) GmbH in August 2015. He started in the insulation sector on the 1st August 1975, became involved with casket construction and then moved on to measuring and installing exhaust mats. In 1999, Thomas qualified as a site supervisor. After numerous assignments abroad, including Kuwait, France, Spain, Poland and Greece (where he worked on Olympic ships) he has spent the last five years specialising in the production of plastic outer covering for ships.



Klaus Ostermann

started as a trainee on 15.09.1975. After military service, Klaus spent 5 years as an installer and fitter in the acoustic department in Hannover. Today, he is a special equipment finisher of insulation caps for heat exchangers and a recent addition to the works council in Hannover.

Jan Kowalski



After completing the Basic Vocational School in Ilów Jan Kowalski started to work for Izokor Plock. He worked at various construction sites in Poland and abroad including Germany, the Netherlands, and Belgium. Jan is married, has two daughters and three grandchildren. In his leisure time he likes fishing and mushroom picking.



40
YEARS
KAEFER

Yvonnick Le Diberder

Yvonnick Le Diberder has started his career at WANNER on 6th of August 1975 at the age of 21. With a joiner background, he has learned to insulate pipes of refrigeration unit feeds in large slaughterhouses and dairies in the Brittany area in France. With the merger of KAEFER and WANNER in 2001 Yvonnick was transferred to the Nantes agency and learned the trade of a sheet metal worker. In 2014, Yvonnick evaluate as Team Leader and now produces sheet metal work and becomes expert in the Campbon Agency, as well as on numerous sites: Kermené Collinée, Brittany Fine Chemicals in Pleucadeuc, Dairy in Saint-Père-en-Retz



40
YEARS
KAEFER

Jadwiga Lichota

started to work for Termoizolacja in October 1975 as an inspector for economic matters. In 1991, she became a warehouse worker and procurement officer and still occupies this position. From the year 1981, her husband, Stanislaw, worked for Termoizolacja as a thermal insulator, then as a technician until 2004. Currently, he is in pension. Jadwiga has two sons, Piotr and Michał, and a daughter, Ania. Piotr works at KAEFER S.A. Jadwiga is the grandmother of Zuzia, Julka, Radzio and Karolek. She looks to retire in 2016. Jadwiga dreams of visiting beautiful places in Poland. Her hobbies include crocheting, watching war-related films and walking with her dog.



40
YEARS
KAEFER

Tadeusz Łukasiak

completed his studies at a Technical College in Płock and started working at Izokor. Now he works for KAEFER as a sheet metal worker. Tadeusz is married and he is interested in sports.



40
YEARS
KAEFER

Marian Majewski

completed the Basic Vocational School. He used to work for Grudziądzkie Przedsiębiorstwo Budowlane and Stolbud. He started his work for Termoizolacja at Katowice Steel Mill, then he worked for Rybnik Power Plant. In the subsequent years, he went to work in Russia, Germany, the Netherlands and Ireland. Currently, he is working in Poland on a project at the Heat and Power Plant in Tychy. Marian loves fishing and teenage music.



40
YEARS
KAEFER

Wiesław Malinowski

thermal insulator and sheet metal worker, started to work for KAEFER on 20th of January 1975 directly after graduating from company-run school in Tarnów. He worked at the Połaniec branch and used to work on Polish and international construction sites. He also managed insulation works at sites in Germany, Sweden and the Netherlands. He is married to Marta, who is a housewife, and they have four adult children. They also have seven grandchildren. In his leisure time, he keeps rabbits and various kinds of poultry.



40
YEARS
KAEFER

Jens Mathies

On the 01.08.2015, Jens Mathies celebrated 40 years of working for KAEFER Industry GmbH. After a successful apprenticeship as an insulator, he was predominately a safety representative on the power plant sites of Unterweser and ArcelorMittal Bremen. Recently Jens was involved in operations in Sweden and Switzerland.



40
YEARS
KAEFER

Andrzej Mieszkowski

completed basic vocational training at the Vocational School in Łów. Afterwards, he started to work at Izokor Płock. He used to work on various Polish construction sites and in Germany. Currently, he works for KAEFER as a thermal insulator. Andrzej is married, has children and one grandson. In his leisure time, he relaxes by fishing and mushroom picking.



Juan Jose Paz Mora

He started his job as insulator at KAEFER in Spain in 1975, from the very beginning until becoming a great foreman. He has participated in numerous projects in Spain and also in international ones, for very relevant clients, among others, as Dow Chemical and REPSOL.



Agustin Manchon Moñoz

He started his professional career at KAEFER in Spain as workshop helper, finishing his studies as draftsman in the meanwhile. He became the production responsible for Construction, Acoustic and Fireproofing in Arrigorriaga branch. We can highlight projects developed for relevant companies as NESTLE, PESCANOVA and FRUDESA, among others.



Baldomero Suarez Patiño

He started at KAEFER in Spain in 1975, in the insulation area, specialising in shipbuilding. A great part of his professional carrier has been developed in NAVANTIA. He is considered a reference in the shipbuilding field, becoming a foreman more than 15 years ago.



Jose Ramon Santamaria Perez

In 1975, he started at KAEFER in Spain, working in different fields, specialised in the area of shipbuilding. He has participated in international industrial projects. nowadays, he is developing his career as a foreman in shipbuilding for ZAMAKONA.



Roman Pieczarka

gained his qualifications at the Vocational School in Tarnów. He started working at Termoizolacja as a thermal insulator. His first steps were at a construction site in Kędzierzyn Koźle, then in Połaniec, Bełchatów, Turaszów, Poznań and Gorzów Wielkopolski. He gained experience as a foreman and sheet metal worker. He also worked at construction sites in Germany, Egypt, Slovakia and Lithuania. Currently, he works at a site in Zielona Góra. Roman is very communicative and exceptionally skilled in teamwork. He lives in Lubań Śląski with his wife Hildegarda. He spends his leisure time reading books and watching history movies.

Zdzisław Płonka



is a very experienced, long-term foreman. He holds a number of qualifications to performing insulation works and managing people, including a professional training in team management. Currently, he manages teams at construction sites in Poland. In his private life, he is a happy husband and father of three children.



Andrzej Różański

graduated from the „IZOKOR-INSTAL” Basic Vocational School. In 1975, he started work as an insulator at Izokor. He also used to work in car body repair shops. He spent many years working on overseas in countries such as Iraq, Germany, Ireland, the UK, Sweden, Norway, Lithuania, Latvia, Belgium and the Netherlands. In Poland, he worked in Płock, Gdańsk and Konin. Currently, he works in the Benelux countries. Andrzej is married to Ewa and they have two children, Joanna and Daniel. They also have two grandchildren, Kacper and Kristian. As a hobby, he plays brass instruments. He is an active member of the Płock Brass Band.





40
YEARS
KAEFER

Marian Szafranec

completed his two year training course at a Basic Vocational School. After completion, he began work as a thermal insulator and sheet metal worker (jobs in which he specialised in at the school) and continues this job to this day. During 40 years of service, he used to work at numerous construction sites in Poland, Norway and Germany. Marian is married and has two adult children. In his free time, he goes for a walk with his dog and watches action films. To keep fit, he swims regularly. His plans for the future? To enjoy good health for a long time.



40
YEARS
KAEFER

Stanisław Tyrała

began studying at the Basic Vocational School in Termoizolacja Zabrze as a constructor of industrial boilers. Having completed his studies, he worked at Termoizolacja in Bytom Szombierki in the section of manufacturing prefabricated refractory concrete material for OP 230 to 460 MW boilers and WR 25 35 MW boilers. Stanisław moved with the Central Warehouse from Zabrze to Szczęść Boże, where he works as a warehouse assistant. Gardening is his hobby, which includes growing his own fruit and vegetables.



40
YEARS
KAEFER

Stanisław Wolański

started work in 1975 in insulation at PRT Termoizolacja Zabrze, then Termoizolacja Zachód Sp. z o.o., Termoizolacja S.A. and finally KAEFER. At KAEFER he works at the Konin branch, Głogów agency, as a technician. He used his skills in many projects, both in Poland and abroad. As a leisure activity, Stanisław has a passion for the automotive industry and politics.



40
YEARS
KAEFER

Krystian Woźniak

finished at the TERMOIZOLACJA Basic Vocational School. Afterwards he started to work at the Central Workshop in Bytom-Szombierki. There, he worked as a technician for 10 years before finally following a contract to East Germany. Subsequently, long-lasting jobs at German construction sites continued, including jobs in Lingen and Bochum. Currently, Krystian works at the Tychy Heat and Power Plant construction site. As a twelve-year-old boy, he set up a football club named „Arsenal Mikulczyce” with his friends and he has been playing for them ever since. In free time, he listens to his favourite band, Electric Light Orchestra.



40
YEARS
KAEFER

Jacek Wójcik

graduated from a construction vocational school. He is a very experienced technician. As he holds the title of foreman in thermal insulation, he used to train students at the company-run construction crafts school for a number of years. Many of his students are our employees nowadays. He is a happy father of two very gifted daughters.

40
YEARS
KAEFER

BRITTA LUKASCHEK, KAEFER ISOLIERTECHNIK GMBH
JÜRGEN WASSMUTH KAEFER ISOLIERTECHNIK GMBH
ROLAND WENGEL, KAEFER MONTAGE GMBH
SŁAWOMIR BĘBENISTA, KAEFER SA
JERZY BORAWSKI, KAEFER SA
ZYGMUNT JAWORSKI, KAEFER SA
EDWARD LENDZION, KAEFER SA
WOJCIECH NYCKOWSKI, KAEFER SA
WOJCIECH REDLIŃSKI, KAEFER SA
STANISŁAW ZDANOWICZ, KAEFER SA

Anniversaries

AUSTRALIA

KAEFER Integrated Services Pty Ltd.

10 Years

Dwain Cox
Penelope Staebler
25 Years
Joe Coito

AUSTRIA

KAEFER Isoliertechnik Ges.m.b.H

10 Years

Zvonko Nikolovski
20 Years
Ali Durak
Kurt Rein
Niko Saric
25 Years
Christian Baldasti
Izudin Poparic
30 Years
Heinz Krammer

BELGIUM

KAEFER België NV

10 Years

Armando Duarte da Luz
Jose Silva Semedo
20 Years
Jose Antonio Pires Martins

BRAZIL

KAEFER Serviços Industriais (now part of RIP)

10 Years

Amaury De Oliveira
Raimundo Marciano da Cunha
Helio Silva de Oliveira
Waldir Veloso de Souza
20 Years
Odilio Batista dos Santos
Osmar Gonzaga da Silva

RIP Serviços Industriais Ltda

10 Years

Jose Adriano dos Santos
Wagner Alexandre Simao
Alessandro Alves de Andrade
Nilton Alves Specht
Edivaldo Barreto da Franca
Robson Batista dos Santos
Benicleido Carvalho da Silva
Rogerio Castilho
Marcio Crepaldi de Moraes
Francisco Cristiano da Silva
Robson da Boa Morte Santos
Renato da Silva
Ariovaldo da Silva Nunes
Israel de Alencar Bezerra
Adriano de Carvalho Oliveira
Ailton de Jesus Viana Silva
Rafael de Quadros Fagundes
Genival de Souza Henrique
Francinando do Vale Rodrigues
Ednilson dos Santos
Jose Eloi Lopes
Euler Fabiano Giroto
Rodrigo Gonzaga Oliveira Natal
Flavio Guedes Chagas
Cloves Jose Evangelista Silva
Helmar Lima de Carvalho
Arlon Lima dos Santos
Rogerio Machado Porto
Rodrigo Maciel Kaczalla
Jose Maria de Lima Sanches
Armando Marques dos Santos
Joelson Messias da Silva
Manoel Messias Anunciacao
Sandro Pontes Barrach
Ronaldo Ramos da Anunciacao
Jose Reginaldo dos Santos
Valerios Ricard Souza Lima
Paulo Ricardo dos Santos Aresi
Raimun do Rocha Santos
Wilton Rodrigues Viera
Alex Santiago de Lima
Shirley Silva Bento

Jose Silva Freitas
Izaias Tavares
Valdeci Valentim dos Santos
Hudson Valim dos Santos
Alessandro Volpato
Marcelo Wenceslau Palmisciano
20 Years
Edvaldo de Andrade
Antonio Felix da Silva
Gilmar Ferreira
Irineu Furtado
25 Years
Juan Gustavo Inostroza Marquez

CANADA

KAEFER Industrial Services Ltd.

10 Years

Barbara Hillenaar
25 Years
Patti MacPherson
30 Years
Mel Hofer

CHILE

KAEFER SOUYET S.A.

10 Years

Mónica Angelina Aguilar Mora
Daniel Ignacio Espina Fuentes
Exequiel Eduardo Lobos Carvajal

CHINA

KAEFER Insulation Engineering (Shanghai) Co. Ltd

10 Years

Jan Timo Kalthammer

CZECH REPUBLIC

KAEFER Izolacni Technika spol. s.r.o

20 Years

Igor Zachoval

FINLAND

KAEFER Oy

10 Years

Czeslaw Drozd
20 Years
Kristiina Ketola
Markku Virtanen

FRANCE

KAEFER WANNER S.A.S.

10 Years

Abdelmajid Akkouh
Christophe Allain
Pascal Annet
Eric Audiebert
Alain Bergeot
Heatcleef Blandzinski
Nicolas Bodar
David Boulet
Yannick Brement
Christelle Brillaud
Franck Brunet
Cedric Cantalapiedra
Tony Carisey
Nicolas Chergia
Anthony David
Cedric David
Damien Dazard
Olivier De Wilde
Daniel Druart
Richard Duarte da Rosa
Jerome Garnesson
Manuel Geeraert
Karim Gougam
Thomas Grenier
David Guest
Laurent Guyomard
Karim Hassad
Jose Hernandez
Olivier Hervieu
Remy Jacquot
Franck Kammerer
Cedric Khaouas
Thomas Leclerc
Frederic Leleu

Lilian Letrividic
Biagio Loria
Cedric Loria
Olivier Maillou
David Marna
Joel Martin
Freddy Monnier
David Montier
Antoine Mougín
Romeo Mugica
Abdelhalim Nassiri
Jean-Pierre Petrement
Vincent Pizano
Sylvain Prouille
Mohammed Rabia
Abderazak Rayacine
Rodolphe Robert
Laurent Rodrigues
Julien Ruppe
Frederic Ruppe
Guillaume Sennegon
Ouissem Souaifi
Christelle Terrier
Jean Luc Thaillet
Yann Vauthier
Matthieu Volckmann
20 Years
Didier Champeval
Dragisa Dakic
Laurent Doualle
Herve Gougeon
Andre Proux
Vianney Sainseaux
Sylvie Sardais
Sylvie Troin
Luc Vega
25 Years
Frederic Auclet
Franck Avenel
Virginie Bento
Patrick Bernard
Germain Boquet
Abdelaziz Bouatba
Xuang Hui Dang
Orazio Di Dio
Thierry Dubois
Leopold Dubray
Philippe Dumont
Hubert Evin
Jocelyn Firmin
Olivier Gagneuil
Dominique Gargiulli
Patrick Georgeon
Jean-Marc Glinkowski
Eric Guillotin
Bernard Jeanne
Patrice Lagorce
Laurent Lainelle
Franck Lambert
Andre Lefebvre
Philippe Lefebvre
Jean Claude Lelong
Daniel Lhermitte
Hubert Loget
Jean Pierre Maquaire
Franck Martin-Gries
Thierry Merel
Thierry Petit
Pascal Poret
Pascal Reveillac
Xavier Romo
Laurent Steu
Vincent Stissi
Lionel Tardivoux
30 Years
Jacques Alberola
Jacques Berranger
Jean Pierre Capa
Jean Michel Dubois
Michel Fossard
Regis Bernard Imbrasse
Juan Manuel Lozano
Philippe Martin
Pascal Senis

GERMANY

KAEFER Construction GmbH

10 Years

Marco Becker
Zoran Budic
Sven Burgard
Dirk Faulstich
Nijaz Hadzic
Carsten Kraft
Ralf Leithäuser
Samir Maksic
Andreas Rink
Dietmar Roitzheim
Rolf Stelling
Norbert Schmidt
Carina Theisinger-Boller
Heiko Unger
25 Years
Andre Alt
Hans-Rudolf Gagzow
Torsten Haß
Knut Holthusen
Michael Jacob
Klaus Lübbers
Michael Teegen
Lutz Christian Zdebel
Rene Ziegenskie
30 Years
Torsten Bauer
Olaf Groskurth
Walter Friedrich Möhl
Uwe Reinders

KAEFER Industrie GmbH

10 Years

Dirk Behnke
Gerd Gollenstede
Malte Schweyer
Franz Spitzer
Franz Strache
Marion Wirtschafter
Mehmet Yaramis
Ralf Zeller
25 Years
Rainer Barthel
Jörg Daumann
Heiko Jürgens
Thomas Pattke
Martina Patze
Roland Pockrandt
Karl-Heinz Reineke
Ralf Wendorf
30 Years
Peter Blunck
Petra Droste
Rainer Frägel
Reinhard Müller
Sven Oestmann
Heiner Petz
Martin Schubert
Frank Weinert
Dittmar Wellbrock
Georg Zgrzebski

KAEFER Isoliertechnik GmbH & Co. KG

10 Years

Angela Gnech
Marc Oesterle
Elke Schröder
Christian Stadtlander
20 Years
Detlef Büchner
Peter Heitmann
Holger Krull
Ralf-Peter Ludewig
Claudia Penning
25 Years
Vlasta Kafkova
Hermann Otten
30 Years
Aswin Leo
Andrea Lindhorst

KAEFER Montage GmbH**10 Years**Karsten Gruhl
Matthias Riedel
Bore Stojmanov**20 Years**Jörg Dietrichkeit
25 Years
Andreas Bertuleit
Mike BuseJürgen Drafz
Joachim Flämmich
Norbert Hilbig
Rainer Kroll
Dirk Kruse
Eryka Kruszona
Wilfried Ladebeck
Roland Mergner
Detlef Mundt
Hans-Jürgen Nitsche
Marcus Pielok
Siegfried Pollex
Jörg Raugust
Norbert Ringleb
Torsten Rochow
Hans-Joachim Spreewitz
Hans-Ulrich Theuergarten
Rainer Woidtke
30 Years
Thomas Müller
Olaf Rodewald**KAEFER Schiffsausbau GmbH****10 Years**

Okke Müller-Röhlick

20 Years

Ute Halama

25 YearsClaudia Adebahr
Angelika Reißmann
Daniela Wenn**30 Years**Gottfried Adler
Bronislaw Balcer
Marten Kelling
Klaus Quader
Karl Heinz Sept
Alfred Till**KINGDOM OF SAUDI ARABIA****KAEFER Saudi Arabia Ltd.****10 Years**

Mohammed Yunus

LITHUANIA**KAEFER UAB****10 Years**Raimundas Berenis
Andrius Butkus
Svetlana Grigorjeva
Aleksej Ivanov
Natalja Kučinskienė
Levita Pintverienė
Aidas Poškys
Viktoras Rakštys
20 Years
Olga Alšauskienė
Janina Birbalienė
Jonas Čiuras
Danutė Gargasienė
Antanas Mikalauskas
Marytė Narmontienė
Juozas Ruškys
Leonas Šutas
Stanislava Šyvokienė
Kęstutis Visockas
Liudmila Zablockienė
25 Years
Laima Janulionienė**NETHERLANDS****KAEFER Nederland B.V.****10 Years**Danny D'Hert
Debbie Lorijn
Harry Mange
Ronnie Moerland
Frank Verwijmeren
20 Years
Geert van der Weide**NORWAY****KAEFER Construction Norway A.S.****10 Years**

Andrzej Matusiak

30 Years

Henning Christensen

KAEFER Energy A.S.**10 Years**Eirik Aune
Reidar Barstad
Christoph Beer
Liudmila Belyaevskaya
Peter Bernhardsson
Erik Bøe
Roger Duun
Jan Ellingen
Sigbjørn Åge Garstad
Frank Grannes
Odd Hjelle
Bård Hjortnes
Moges Kidane
Stian Kristensen
Vidar MjeldeLarsen
Asgeir Løvstuhagen
Jan Nætyнки
Kari Nætyнки
Veli Matti Nætyнки
Bjørn Ommundsen
Lars Rimestad
Abdullahi Salah
Mohammed Satori
Kristian Smistad
Jari Stenius
John Inge Tveiten
Nigel Stuart Whittaker
20 Years
Bjarne Austrheim
25 Years
Rune Eine
Arild Haugland
Rolf Ingebrigsten
Harald Nordeide**POLAND****KAEFER SA****10 Years**Iwona Blaut
Piotr Cebula
Mirosław Chodzikiwicz
Paweł Curyło
Łukasz Dębiński
Katarzyna Dojutrek
Aleksander Dołęga
Liliana Fedorów
Tomasz Franczyk
Sławomir Grubka
Michał Heinrichs
Krzysztof Janicki
Jarosław Kania
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