

PGUB

Management Consultants GmbH

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DEAR CUSTOMERS AND BUSINESS PARTNERS,

what a year - from full load to almost zero, from "always on" to "reset", from boom to crisis. All of this through a "virus", something that we have only associated with computers in the recent past. Of course, this also affected us, the PGUB. Like our customers we have partial short-time work and needed to cut costs. We are therefore closing our "birthplace" in Bickenbach with a heavy heart and expanding our office in Wiesbaden.

At the same time, we will achieve cost sharing in our Munich office through cooperation with various partners in addition to creating synergy effects.

Time for change: In addition to our focus on the automotive industry, we are taking on new challenges in other areas in order to expand our portfolio and strengthen our position in the market.

Many thanks to all of our longstanding customers and partners who have supported us in these very difficult times. We are more than thankful for your commitment and are looking forward to many exciting, joint projects.

Sincerely

Peter Gresch



Over 350 years of industry
knowledge combined - with a focus on e-
mobility, lighting systems,
EE systems, mechatronics and
plastics technology and materials

Cooperation Partner





The homepage is right:
"FEDDZ ... brings pure driving pleasure and makes all newcomers grin in the face."

FEDDZ – PREMIUM E-MOBILITY ON TWO WHEELS

by Detlef Decker

When the first visit to the customer begins with a test drive, this indicates already a very special project. When it comes to e-mobility in a new vehicle class, it increases curiosity even further.

And indeed, the often described high torque of the electric motor can be felt at the start, only the second time you dare to open the throttle fully.

E-mobility means much more than just the electrification of cars. Straight two-wheelers, which are usually only driving a few tens of km a day is ideal for converting to a modern and ecological drive system. And a portable battery makes charging unproblematic.

Our customer, EMB Elektromaschinenbau GmbH, who developed and produces the FEDDZ product, sets standards here.

The most important data that characterize the two-wheeler:

- 45 km / h EU road approval
- 60–80 km range
- 47 kg total weight including battery (the lightest small electric motorcycle in its class)
- 2.4 kW wheel hub electric motor, brushless
- Battery 2.000 Wh, removable, lockable, 4.5 hours charging time

Also important for a modern, successful vehicle:

FEDDZ received a design award and a technology award.

PGUB's support for this vehicle extends to the optimization of essential components and new product solutions. Because the goals for the FEDDZ are ambitious. The current niche product should be as fast as possible become a vehicle that can also be produced in large quantities, including a supplementary e-pedelec series.



EXPERIENCE REPORT BMW 330E PLUG-IN HYBRID

by Stefan Schmidt

BMW advertises its new modified 3-series plug-in hybrids, who has also been in daily use at PGUB Management Consultants since 12.09.2019. Of course, we also want to live up to our responsibility and help reduce CO2 emissions. But what does daily practice look like?

I've already driven the BMW for more than 100 days and almost 20,000 km. My first conclusion; there is light and shadow.

As usual at BMW, the vehicle is of top quality in terms of built-in technology, vehicle coordination and workmanship and is fun. With the second generation of the plug-in hybrids, BMW has increased the electric range according to WLTP to 66 km and reduced the gasoline consumption according to WLTP to 2.3-1.8 l / 100 km. The CO 2 emissions are 52-42 g / km. To what extent the CO 2 emissions are observed, I can not judge, the actual values for e-range and fuel consumption are 40 km and an average of 4.7 l / 100 km combined, combined with the fact that I live in the rural low mountains, in my opinion acceptable.

The vehicle is primarily charged at home, here I can implement the so-called "excess charging" with an installed PV system on the roof and modern charging management and feed the excess electricity into the "BMW" rather than into the power grid. In my view, this makes things round and economical.

In practice, it continues to show that you adapt your driving style and try to maximize e-ranges and avoid hectic acceleration. I primarily drive with navigation, because then BMW supports a predictive driving style and early on e.g. speed limits and / or gradients in the recuperation process and charges the battery.

In the first few months, problems only occurred with the connectivity to BMW or with the software for features that did not concern driving, but primarily functions such as switching on the air conditioning via smartphone or updates that BMW wanted to import "over the air". Here, however, remedial measures could be taken with 2x 1 day in the workshop and the installation of new software for all control units.

As a result, I can say for myself that the overall package fits, even if you have to cut corners at one point or another, such as in the trunk and tank capacity.

"Sheer driving pleasure, the BMW 330e stands for typical BMW driving pleasure, performance and maximum efficiency. The groundbreaking BMW eDrive technology enables an extended range of 64-66 km electrically - and at the same time significantly reduced CO 2 emissions. "



Best practice, a concept that is very often used by companies and which, as experience from our customers shows, gives rise to various interpretations in the consulting environment

SALES "BEST PRACTICES"

by Viviane de Shrijver, Dirk Jürgens

A sustainably structured change creates process-related learning phases, which are supported positively by the strategic cooperation with the PGUB Management Consultants and which, when implemented jointly, lead to permanently better internal processes and improved customer connections.

The manifested structures and processes within organizations that need to be worked out often only become apparent in the course of a consultation. Especially in the case of medium-sized companies, which may be in an ongoing restructuring process or have to change organizationally due to market-specific challenges - keyword Corona - there are often problems that can hardly be overcome by "own strength". This phenomenon also exists in the Cooperation models between smaller, especially innovative, companies with the so-called "big players", for example in the automotive industry.

The structural orientation of the respective organizations are often significantly different when it comes to setting up sales and their responsibilities towards customers and product/ project management.

This is where our well-founded practical experience and consulting expertise come into play. Especially when it comes to strategic realignments that are structurally due to the upcoming changes in the automotive industry, our customers keep asking themselves whether existing and long-established processes are project-oriented. The key word here is "adaptability of companies" and also the influence of introducing changes into existing working methods.

In the first joint workshops with our customers, there are always uncertainties about how customer requirements can and must be dealt with in the context of development or contract conditions.

In the past year, for example, we have provided sustained support to customers in establishing and introducing acquisition processes. In the run-up to our consultations, there were not insignificant work volumes in the subject areas of holistic contract management. Starting with scope for interpretation and a common understanding of cost structures, the so-called "customer-specific cost breakdowns", up to profound legal problems, some of which can be directly or indirectly in the context of a Automotive-specific work and contract environment.

Keywords here are e.g. Supply chain management systems, extended delivery and payment modalities, quality and warranty agreements or the sales side use of ERP systems (SAP). Proactive action strategies and recommendations were derived from this developed for a more targeted negotiation strategy with our customers and already successfully applied!

Finally, it should also be mentioned that with the current corona pandemic and an already noticeable economic recession for many companies that have been established for many years, and above all regardless of size, huge challenges in the direction of practiced processes, as well as the opening up of new potential markets and customers.

JOINT COLLABORATION TELAMON

by Tom Puza

Established in 1985, Telamon Corporation specializes in solutions for automotive wire harnesses, industrial assembly and telecommunication networks. Headquartered in Carmel, IN, USA, Telamon is one of the largest family owned, minority companies in Indiana. We continuously strive to exceed customer expectations and standards, and have been recognized globally through numerous awards and certifications.

With over 30 years of experience, Telamon's Industrial Solutions has established itself as a robust wire harness manufacturing company across multiple industries. Our team is dedicated to exceeding our customer's expectations by delivering services and products that require competitive pricing, automotive safety grade quality, and just in time delivery. Telamon's overall goal is to develop long lasting relationships with our customers and support them through all aspects of their business.

Serving global markets, we have strategic locations in North America and Europe. Our facility in Dayton, OH, USA, serves as our hub for engineering, program management and design. Our Frensillo, Mexico, and Skopje, N. Macedonia, manufacturing sites support mid to high volume production programs.

At Telamon Industrial Solutions, we are committed to ensuring that the key principles of lean manufacturing and continuous improvement are embraced throughout the entire organization. This quality focus ensures that the highest level of satisfaction is consistently delivered to all our customers. We continually strive to perform at ZERO DEFECTS and 100% on-time delivery.

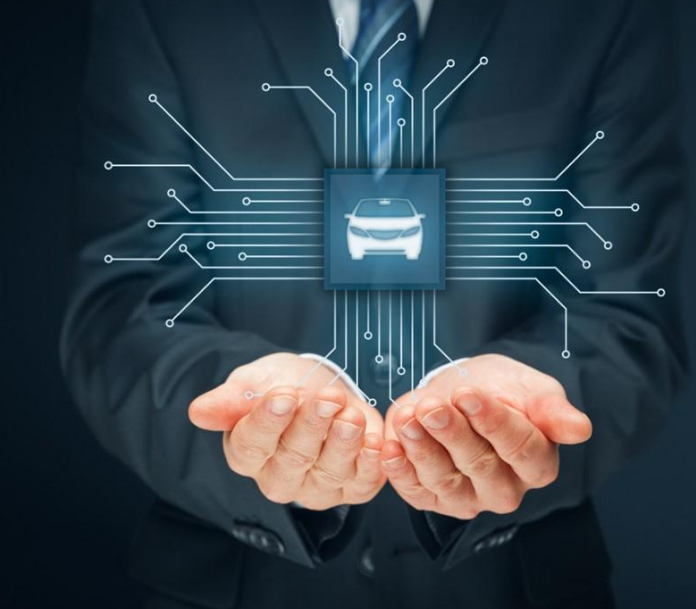
Telamon is certified to ISO 9001:2015 and IATF16949 standards to ensure this high quality commitment is maintained across all of our operations

To support our growth throughout Europe, Telamon has been working with PBUG over the last 3 years to leverage their expertise and portfolio of services. With PGUB's assistance, Telamon has been able to penetrate the European market quicker and more effectively. They continue to support us with their strong sales and engineering capabilities and Telamon looks forward to many additional years of this partnership as we continue to expand throughout Europe.

Telamon is dedicated to providing wire harness solutions to fit your unique needs.

Tom Puza, President
Automotive &
Industry:
“PGUB is a valued
and trusted partner
for Telamon's growth
in Europe.
With PGUB's
assistance, we can
offer capable sales,
engineering and
commercial services
to our clients in a
flexible and
reliable way.
I feel very
comfortable
committing to
European projects
with PGUB's
demonstrated
capabilities”





ELECTRICAL SYSTEMS



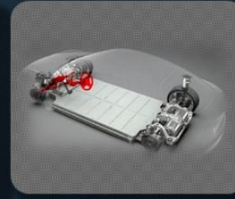
CHASSIS, SAFETY, ADAS
& AUTONOMOUS



INFOTAINMENT &
CONNECTIVITY



BODY & CONVENIENCE
ELECTRONICS



ePOWERTRAIN SYSTEMS



LIGHTING SYSTEMS

COLLABORATION BLUEBINARIES

by Kishore Lm

BlueBinaries is a provider of niche mobility, Electrical & Electronics Engineering Solutions & Services to partners globally. BlueBinaries stands on a 30-year leverage of Industrial know-how, value creation and successful strategic partnerships.

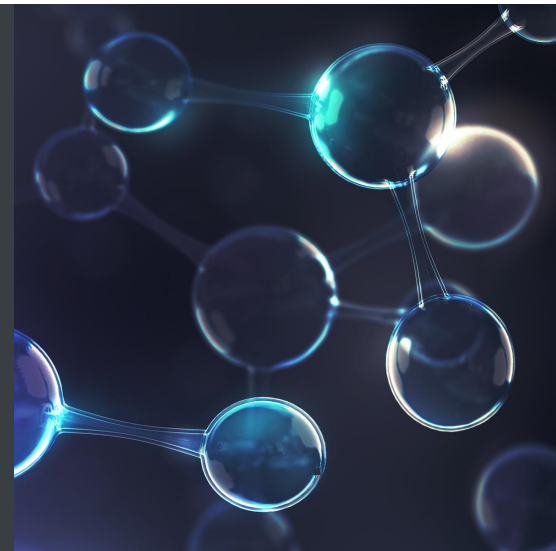
Being associated with mission critical and highly competitive sector such as Automotive, BlueBinaries appreciates the need for creation of sustainable growth and customer proximity. The key is creating value which is not just reflected in improving efficiencies, but also ensuring product quality predictability. As BlueBinaries core team came from largest Auto OEM & Tier1s, BlueBinaries is very familiar with the technological demands of this sector especially in Architecture Design, Systems Engineering, Software/ Tools/ Application Development, System and Software Testing.

BlueBinaries with its global partners like PGUB delivers Global Quality at Competitive Costs by its innovative and customer-oriented service models which provide the flexibility and supports customers to reduce the development and maintenance cost while retaining the needed Quality.

As part of Expansion strategy by BlueBinaries after having successful operations in India and UK, BlueBinaries has partnered up with PGUB to understand European/ German market and customers. In utilizing PGUB's professional consultancy portfolio and business network, BlueBinaries participated in notable European wide congresses such as Electronica in Munich to grow company awareness and customer contacts. Followed by technically sophisticated inquiries at various European OEMs, Tier1s and Tier2s leading to first business,

FUEL CELL TECHNOLOGY IN THE FOCUS OF GERMAN AND EUROPEAN FUNDING

- As part of the "National Innovation Program for Hydrogen and Fuel Cell Technology", € 1.4 billion will be invested between 2016 and 2026.
- By 2025, the total number of hydrogen filling stations in Germany is expected to be 400, with the total capacity of hydrogen electrolysis being 30-35 GW by 2030.
- The number of hydrogen regular service buses is forecast to be 5,000 (4% market share) by 2025.
- Production of 1 million fuel cell vehicles per year is expected by 2040 (95% of which are cars and light commercial vehicles)



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Bickenbach



Dortmund



Wiesbaden



München

Events 2020

Iseled Conference
03.09.
Munich

The Automotive
Battery
17. - 18.09.
Munich

EV Tec Virtual
Conference
10.2020
Shanghai

Electronica
09./10. - 13.11.
Munich

Competence Meeting
"Electromobility
in NRW"
01.12.
Wuppertal

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