



Transforming Innovations from SpaceTech into efficient & green Industry / Mobility Solutions
Double Impact by KTW

Why?

Disruptive Space Solutions 4 our Planet and your Efficiency

How?

KTW Technology creates impact by closing the gap between added value and sustainability through transforming space innovations into disruptive solutions.

What?

With our solutions we enable our customers to support up to five of 17 SDG's of the UN.



The industrial and mobility sector (worldwide) produces too much CO₂, is partly inefficient and wastes resources

- **For example: Beverage Filling Industry**

Waste of Energy and Emissions in the use of Compressed Air in WW Industry
the most inefficient form of energy

100,000,000,000
\$ Energy Cost

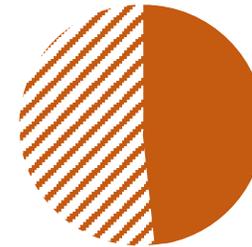
700,000,000
tons of CO₂ p.a

Waste of Resources as Water...
(e.g. through purification)

240,000,000,000,000
Liters of Water used for Beverages /year

80,000,000,000,000
Liters of Beverages /year

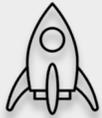
Lack of Efficiency in filling process...
due to increasing product portfolio & smaller lot sizes



45%
Average filling utilization
of a beverage filling line



Thanks to our **USP from SpaceTech**, our **Electronics** and our **self-developed Software**, which are the heart of our solutions, we can solve a lot of these problems



Our Combination is Unique – Technological Advantages

- Simple and reliable corrosion-free construction
- Suitable for gases & liquids, heat & cold app's
- Fast, real-time pulsing in high frequency
- Wide pressure range
- Precise and accurate repetitions
- Long service life
- Unbeatable dosing range

Smart Valve Technology



Valve*



Electronics



Software

&

&

*developed for the Rosetta space mission

KTW Products – Our 3 solutions for industry are further developments of our *Smart Valve Technology* targeting a greener, more sustainable industry

Focus & Deep Dive

Produkt 02 / 04

Dosing Technology
High-Speed Precision Dosing

8 9 12
pays in to 03 of 17 SEG targets

Precise Pre/Post-Dosing of Flavours, Allergens and sensitive Additives

Increases utilisation of filling technology and reduces resource input

Customers

Realised

Produkt 01 / 04

Compressed Air System
Air Flow Saver

7 8 9 13
pays in to 04 of 17 SEG targets

Optimised Compressed Air Application

Consumption reduction of up to 95% in process and active air applications

Customers

Realised

Produkt 03 / 04

Hydrogen Injection
H2 Injection System

7 8 9 13
pays in to 04 of 17 SEG targets

Hydrogen Injection Technology for CHP's (stationary engines)

Generation of renewable energy

Customers

In Development

Dosing Technology

Save Energy & Water, Chemicals and Increase Efficiency and Flexibility with KTW High-speed Precision Dosing

For example: Beverage Filling Industry

Application

We separate Flavors and Ingredients from the main Filling Process and dose them in high-speed (up to 90k fillings/hour) before or after the main Filling Process

Advantages

- Improve utilization and flexibilisation of filling line
- Avoid aroma carry-over
- Enabling technology to expand product portfolio
- Reduce CAPEX spendings
- Reduce waste of resources and energy
- Key forward to filling on demand



Dosing Technology

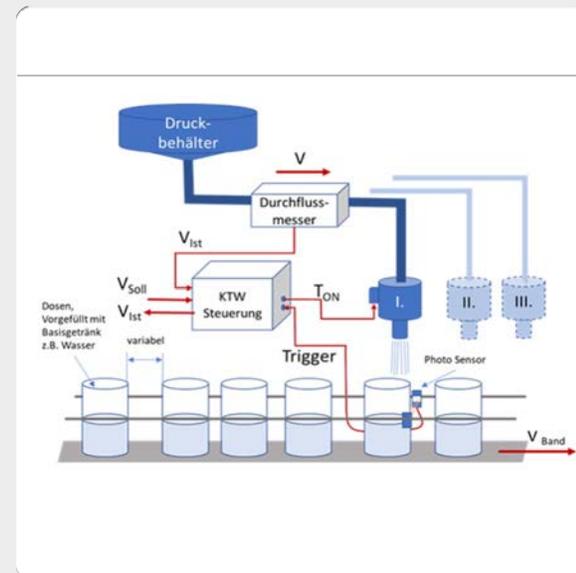
Save Energy & Water, Chemicals and Increase Efficiency and Flexibility with KTW High-speed Precision Dosing

For example: Beverage Filling Industry

Impact by KTW

- **Water Saving Potential**
 - **Saving / Efficiency potential**
 - **Sales potential**
- up to 50%**
6-7 digit € per plant / year
> 1 billion € in total

Customers



Dosing Technology

Mirco & Macro View

MICRO VIEW

European Leading Food Company

- 14 manufacturing plant, 3 focusing on beverages
- 541m liters p.a., 606 different products
- 15 production lines x 4 dosing points
- = 60 dosing points

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MACRO VIEW

Non Alcoholic Beverage Worldwide

- Micro View Market Share Europe 0.4%
- Europe Potential Dosing Systems (250 x 60) 15,000
- Market Share Europe 17.1%
- Dosing System Potential Worldwide 87,700

- Sales Potential (60 x100k €)

6.0 m €

- Sales Potential WW gross (87,700 x 100k €). **8.7 bn €**
- Usage in 25% of App´s (Conservative) **2.2 bn €**



Dosing Technology

Experience and Feedback from our Customers

“The potential for the dosing solution is over 1bn € and the cost saving is 1m € per line per year.”

“Yes, the market has moved us into products that are flavoured. Aroma carry-over, cleaning times, changeover times is a huge issue for us in the mineral water sector, (...) That's when we came to the company KTW, which doses the aromas outside the filling process. (...)

That was a project that was really cool. They Install a dosing system into a blocked plant and have to dose exactly to the millisecond. I had my doubts about that, but it looks really good.”



High-Tech BV
Marketing Dept.



Managing Director

Dosing Technology

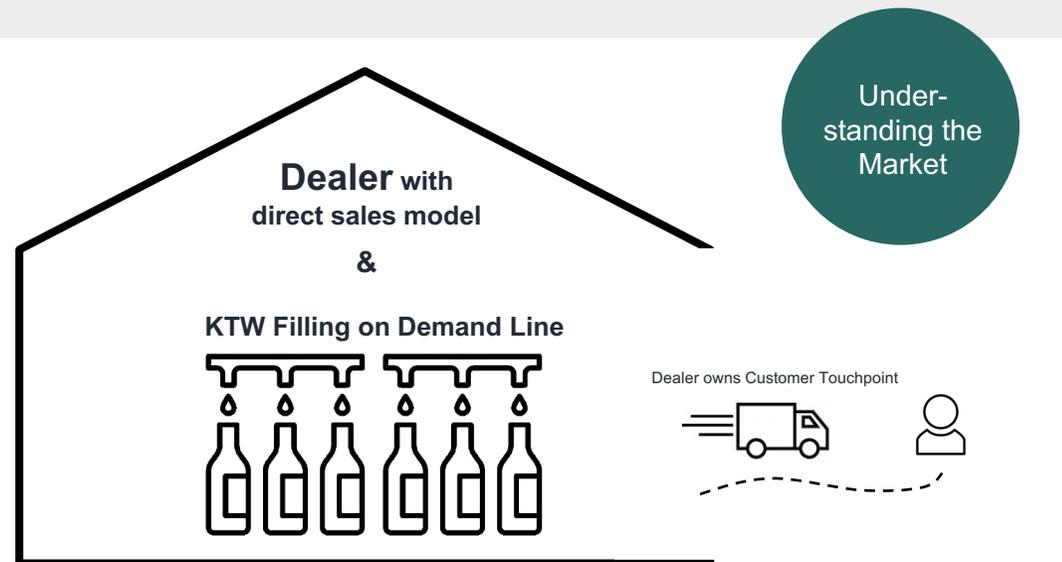
KTW's Future Vision to disrupt the Beverage Filling Market

01 Vision Supply Chain (B to B)

Bottling on Demand Line & Service for Big Dealer (Flaschenpost etc.) with direct sales model

Advantages for Dealers

- Become Bottlers with a few KTW Lines
- Reduction of Logistic and Storage Costs
- More Independence from Suppliers & eliminate Intermediaries
- Respond more flexibility to demand and set their own Trends



02 Vision Equipment as a Service (B to B)

Bottler use 10y Full Service and pays per Dosage
Recurring Income for KTW

Advantages for Customers

- No one-time Capital Expenditures is requested
- Costs are related to sales volume and part of cost of sales
- Full service for 10y



KTW Products

Produkt 02 / 04

Dosing Technology
High-Speed Precision Dosing



Precise Pre/Post-Dosing of Flavours, Allergens and sensitive Additives

Increases utilisation of filling technology and reduces resource input



Customers

Realised



Produkt 01 / 04

Compressed Air System
Air Flow Saver



Optimised Compressed Air Application

Consumption reduction of up to 95% in process and active air applications



Customers

Realised



Produkt 03 / 04

Hydrogen Injection
H2 Injection System



Hydrogen Injection Technology for CHP's (stationary engines)

Generation of renewable energy



Customers

In Development



Compressed Air System

Save Energy, CO₂ & Compressed Air and Increase Performance with KTW AirFlowSaver

Application

Reducing Compressed Air (CA) at the Point of Use by real-time Pulsing and only if CA is needed

Advantages

- Easy and fast retrofit in existing Systems
- Long Product Life (bn of cycles)
- ROI in less than one year
- Disruptive Solution to reduce compressed air at the point of use



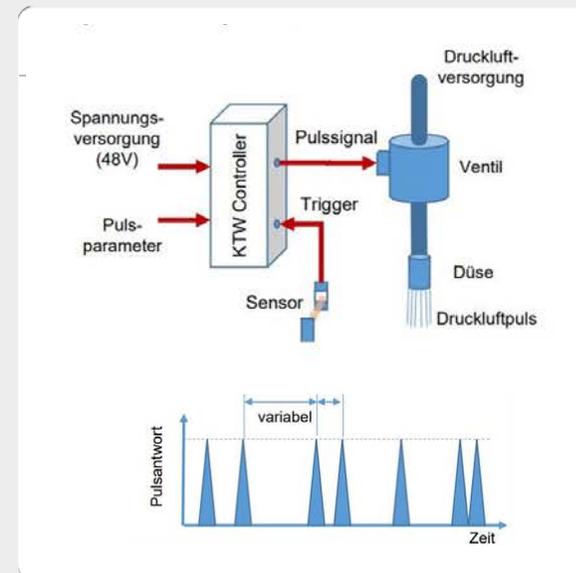
Compressed Air System

Save Energy, CO₂ & Compressed Air and Increase Performance with KTW AirFlowSaver

Impact per Blow-Station

- Compressed Air Saving Potential **50 to 95%**
- CO₂ saving potential **ca. 10 tons CO₂ / year**
- Energy cost savings potential **4 – 5 digit of € / year**
- Performance Increase Potential **10 to 20%**

Customers



Compressed Air System

Mirco & Macro View

MICRO VIEW

Example **Want Want**, China – Food and Beverage

- 90 sites for manufacturing, 38 sites Beverages
- 80 lines for AFS in Shandong site
- 1m CNY Cost Savings Shandong and 0.75 y. ROI
- 1,200 to CO2 Saving Shandong site

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- **Sales Potential Shandong site** **120 k €**
 - **Sales Potential WantWant** (2,000pcs x 1,500 €) **3,000 k €**

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MACRO VIEW

Consumption / Cost / Savings / Sales **worldwide**

- Energy Consumption Industry WW appr. 10,000 bn kwh
- 10% for Compressed Air 1,000 bn kwh
- 70% for Active Air & Process Air (blow) 700 bn kwh

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- Saving Potential (60% of usage & 70% savings) **280 bn kwh**
 - Saving Pot. Energy Cost p.a. (10 cent per kwh) **28 bn \$**
 - Saving Pot. CO₂ p.a. (700 gr per kwh) **200 m. Tons**

-
- Volume Potential (400 bn kwh / 52k kwh) 7.5 m pcs.
 - **ROI per AFS** **< 1 year**
 - **Sales Potential** (7.5m x 1,500 €) **appr. 11.0 bn €**

KTW Products

Produkt 02 / 04

Dosing Technology
High-Speed Precision Dosing

8 9 12
pays in to 03 of 17 SEG targets

Precise Pre/Post-Dosing of Flavours, Allergens and sensitive Additives

Increases utilisation of filling technology and reduces resource input

KRONES ROFFINA Bronkhorst

Customers



Produkt 01 / 04

Compressed Air System
Air Flow Saver

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Optimised Compressed Air Application

Consumption reduction of up to 95% in process and active air applications

Heineken Continental CONTITECH 旺旺集团

Customers



Produkt 03 / 04

Hydrogen Injection
H2 Injection System

7 8 9 13
pays in to 04 of 17 SEG targets

Hydrogen Injection Technology for CHP's (stationary engines)

Generation of renewable energy

2G

Customers



H2 Injection System

Support the development of renewable energy sources, such as hydrogen (Extending to Fuel Cell Injection)

Impact by KTW

- Supporting implementing of green renewable Energy Sources
- Reduction of GHG
- Secure and precise Dosing of Hydrogen
- Increase of durability of Injection System

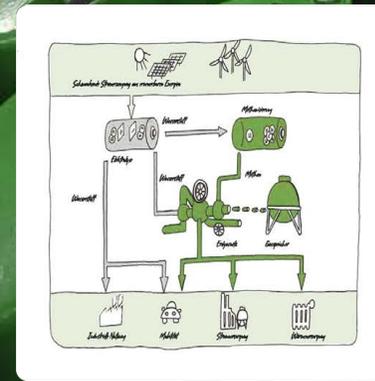
Chances

- Growth in the Fairway of 2G Energy AG
- Potential for more than 40.000 Injection Systems
- Extension in Fuel Cell and Water Injection in a 2. step

Customers



- Development and 5-year Supply Contract with 2G



H2 Injection System

Mirco & Macro View

MICRO VIEW

H2 Retrofitting existing CHP plants of 2G Energy

- Number of 2G CHPs in Europe 5,500 pcs
- Average electrical power of a 2G CHP 250 kw
- Average CO₂ emission per year per CHP 528 tons
- **CO₂ Emissions of 2G fleet per year 3 m tons**

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- Cost for retrofit CHP natural gas to hydrogen. 40 k €
 - Entire cost for retrofit 2G fleet Europe **220 m €**
 - Operating years after retrofit 15 years
 - **CO₂ Saving during operating time 44 m tons**
 - Costs per saved ton of **CO₂ emission 5 €**

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MACRO VIEW

Decarbonisation of existing CHP plants in Europe

- Current CHP capacity 30 GW
- Average operating hour per CHP 4,000 p.a.
- Actual generation capacity elect. 120 TWh

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- **Saving Pot. CO₂ p.a. 65 m tons**
 there of
 Power Sector (332 g/kwh x 120 TWh) 40 m tons
 Heat Sector 25 m tons

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- **Saving Pot. CO₂ in 2050 in Germany 40 m tons**

(Calculation due to Monitoring Report of BMWi)

Our Markets are in various Industries. Our markets are bn\$ markets.

All our solutions are retrofittable (into existing plants / engines / devices)



High-speed Dosing
Dosing / Filling / Mixing

7.6 Billion \$
Turnover 2020 Beverage Filling Lines
Source: Statista

8.2 % CAGR until 2027
Non Alcoholic Beverage Market Global

➔ **>1,000**

Million \$
Est. Market Size Fast Dosing Lines

Sleeping Opportunities / further relevant sectors of industry: Food, Chemical, Pharma ...



Compressed Air
Blowing / Cleaning / Drying

7.9 Billion €
Compressed Air Treatment Equipment Market Global in 2020
Source: Global Market Insights

5.7 % CAGR until 2026
Compressed Air Treatment Equipment
Source: Global Market Insights

➔ **>100**

Million \$
Est. Market Size KTW Solutions for Compressed Air



Injection
Injection / Safety Technology

257 Billion €
Est. CapEx WW until 2030

800 Billion \$ Est. Sales WW in 2050

➔ **>100**

Million \$
Est. Market Size KTW Solutions for H2 and Water Injection

Actually (May) Gross Sales Pipeline of 4m €, Net Sales Pipeline 1m €

Our Solutions are in demand by well-known and innovative Customers

Fields of Applications

Sold / Existing Customer

Quotation / Testing Phase

Initial Contact

Product 03.034
Dosing Technology
High Speed Precision Chemistry

Precise Pre/Post-Dosing of Flavours, Allergens and sensitive Additives

Increases utilisation of filling technology and reduces resource input

High-speed Dosing
Dosing / Filling / Mixing

Product 03.034
Compressed Air System
Air Flow Meter

Optimised Compressed Air Application

Consumption reduction of up to 95% in process and active air applications

Compressed Air
Blowing / Cleaning / Drying

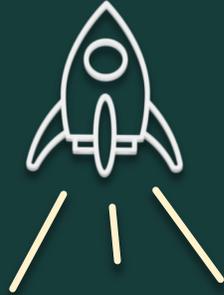
Product 03.034
Hydrogen Injection
Injection System

Hydrogen Injection Technology for CHP's (stationary engines)

Generation of renewable energy

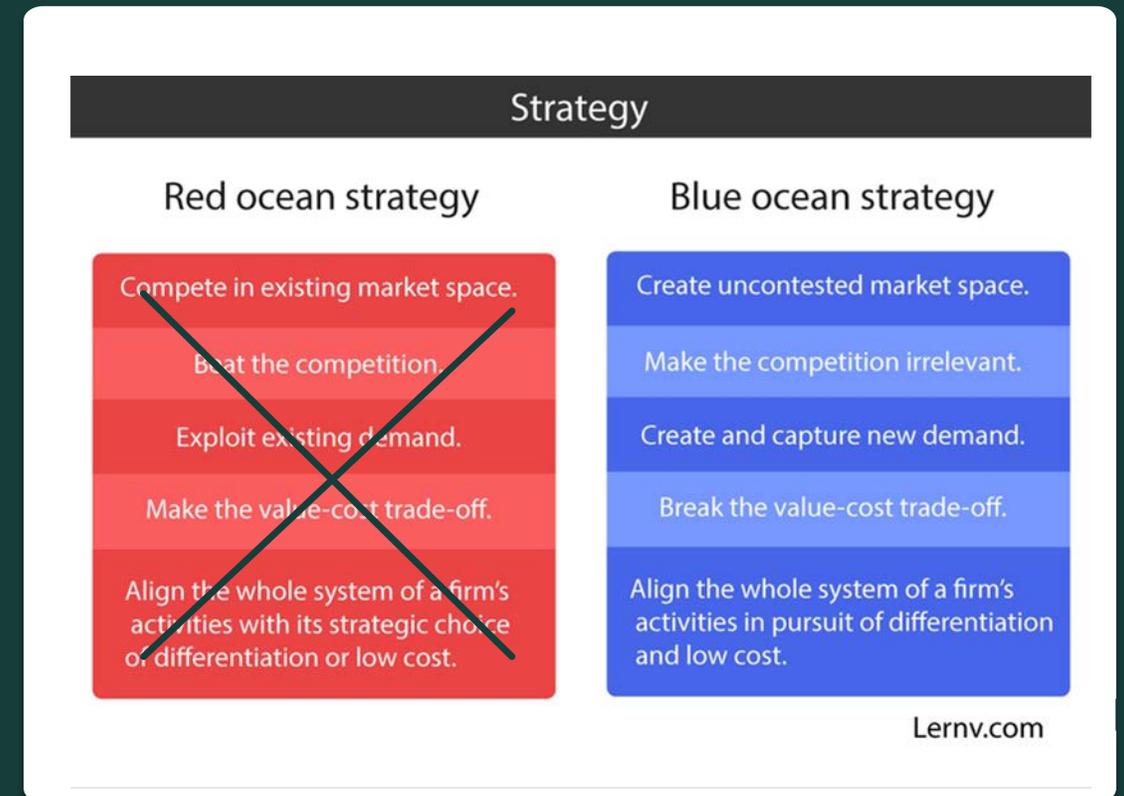
Injection
Injection / Safety Technology

We only offer Solutions that solve problems, don't yet exist and thereby creating a new demand



Make Value as Enabler

- Use diversification to future-proof of the company
- Set clear priorities in building the business and products
- Use current economic developments to meet emerging needs
- Start in a niche and be a system provider
- KTW follows Blue Ocean strategy



IP and years of know-how make the technology of KTW unique and not imitable



Valve Technology (HW)

- KTW licensed from patent holder **DLR**
- Acquisition of patent possible
- **Readiness for series production** & further development by KTW



High Speed Output Stage (HW & SW)

- KTW Technology **owner of IP**
- Utility model protection application **IN PROCESS**
- Expanded Patent Protection **STARTED**

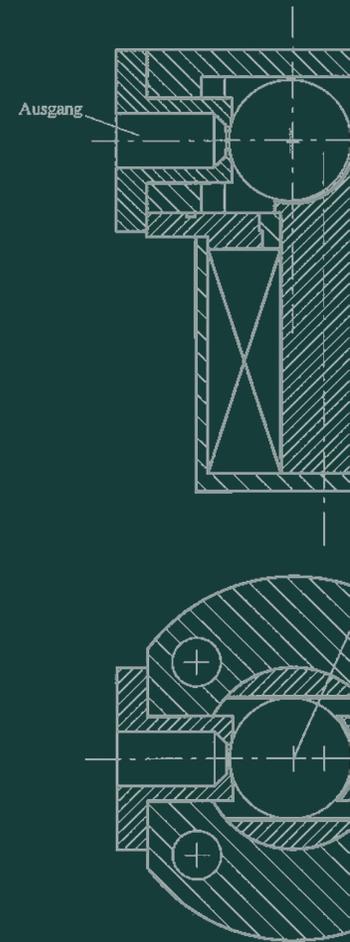


SmartValve Systems (AFS, HSPD, H2Injection)

- Utility model protection and patent application **STARTED**
- The real IP are datas for predictivness

Investors Risk View

Technogical Risk	low
Market Risk	low
Legal Risk	medium



Actual Funding Requirement: Invest of 5m € for 25% shares

ROCF / Year 2027 will be 163%

Financials in k €

1,117		7,570
2022	- Gross Sales	2023
<hr/>		
60 %	Gross Margin%	64 %

22,000		50,525
2024	- Gross Sales -	2025
<hr/>		
69 %	Gross Margin%	71 %

73,575		100,750
2026	- Gross Sales -	2027
<hr/>		
71 %	Gross Margin%	71 %

- 411		- 507
2022	- EBT -	2023
<hr/>		

5,343		18,505
2024	- EBT -	2025
<hr/>		
24%	EBT%	37 %

30,410		41,579
2026	- EBT -	2027
<hr/>		
41 %	EBT%	41 %

- 306		- 64
2022	- Cash Flow I -	2023
<hr/>		
FTE 20		FTE 40

4,729		14,856
2024	- Cash Flow I -	2025
<hr/>		
FTE 70		FTE 100

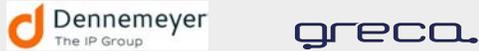
24,218		32,693
2026	- Cash Flow I -	2027
<hr/>		
FTE 180		FTE 250

We create double impact

Win-Win Cooperation



IP Valuation + Company Assessment



Network



Awards



ESA Demonstrator Funding + Spark Funding
Best ScaleUp Startup ESA Investor Forum
Winner Meet&Green Impact Investing
Batch#07 Member at DICA / SCE



INVESTOR FORUM

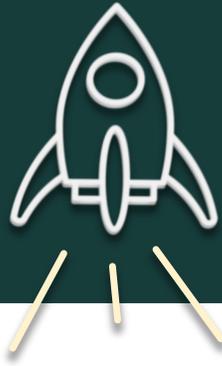
SS SPACE

Best ScaleUp Startup
at XIX. ESA Investor Forum:

Forum



Why invest?



Sustainable Investment that contributes double Dividend with ESG fundable eligible products which serve a Megatrend

Professional, internationally experienced Management Team

HighTech innovations that create a sustainable competitor advantage and high customer satisfaction

Global Markets with high growth Potential

Perfect time for invest, most of the R&D is completed, first products sold and market entry has started

Thanks



On behalf of our Planet and our **KTW Team**



Wolf Teichmann
CEO, CFO & Founder
C-Level Experience: Finance,
Controlling, HR, M&A, Restructuring,
Digitalisation & Organisation



Klaus Weber
CTO & Founder
Expert in Development of Aero-
space technologies



Nadja Teichmann
Innovation & Design
Management
Experience in Mobility &
Manufacturing



Markus König
CSO & Shareholder
C-Level Experience: Supply Chain,
Sales, Restructuring, Organisation



Stanislav Kopecek
CQO & Founder
Experience in Manufacturing & QM

Let's get in touch.

