

Results you can trust

Increased efficiency through reliable data – HBM



Hydroptère sets world record far out at sea.

Challenging requirements
demand reliable data.

Stay on track with precise
measurement results.





We provide life-long security for products.

Products go through different stages during their "lives". Whether it is in development, testing or production – reliable measurement data is always required. How sustainable is a product? How can it be ensured that products and processes benefit from consistent optimization? HBM supports every stage of the product life cycle: providing precise, reliable and trustworthy measurement data.

Reliability is measurable

HBM has been synonymous with reliable measurement results for over 60 years. Across the globe, customers use our measurement data as a compass – in design, development, production and maintenance. Reliability through quality. Whether they are global players or undiscovered innovators – our customers can be confident that we help them achieve their goals faster.

Measuring the world

Hundreds of thousands of users worldwide acquire reliable measurement results at every stage of the product life cycle with HBM. Our test and measurement equipment and software provides significant data to many industries worldwide. The result: faster and more efficient processes that ensure optimized product life cycles.

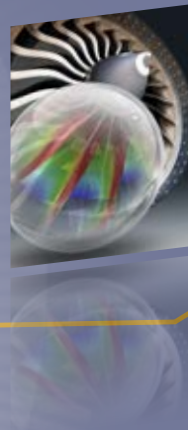
Manufacture,
operate, moni



HBM offers reliability
through every stage of the product life cycle.

tor

Design
and optimize



Test and verify

We cannot see the future.

But we can calculate it.

Fatigue life prediction during a product's design stage. Intelligent software for visionary decisions.



Design
and optimize

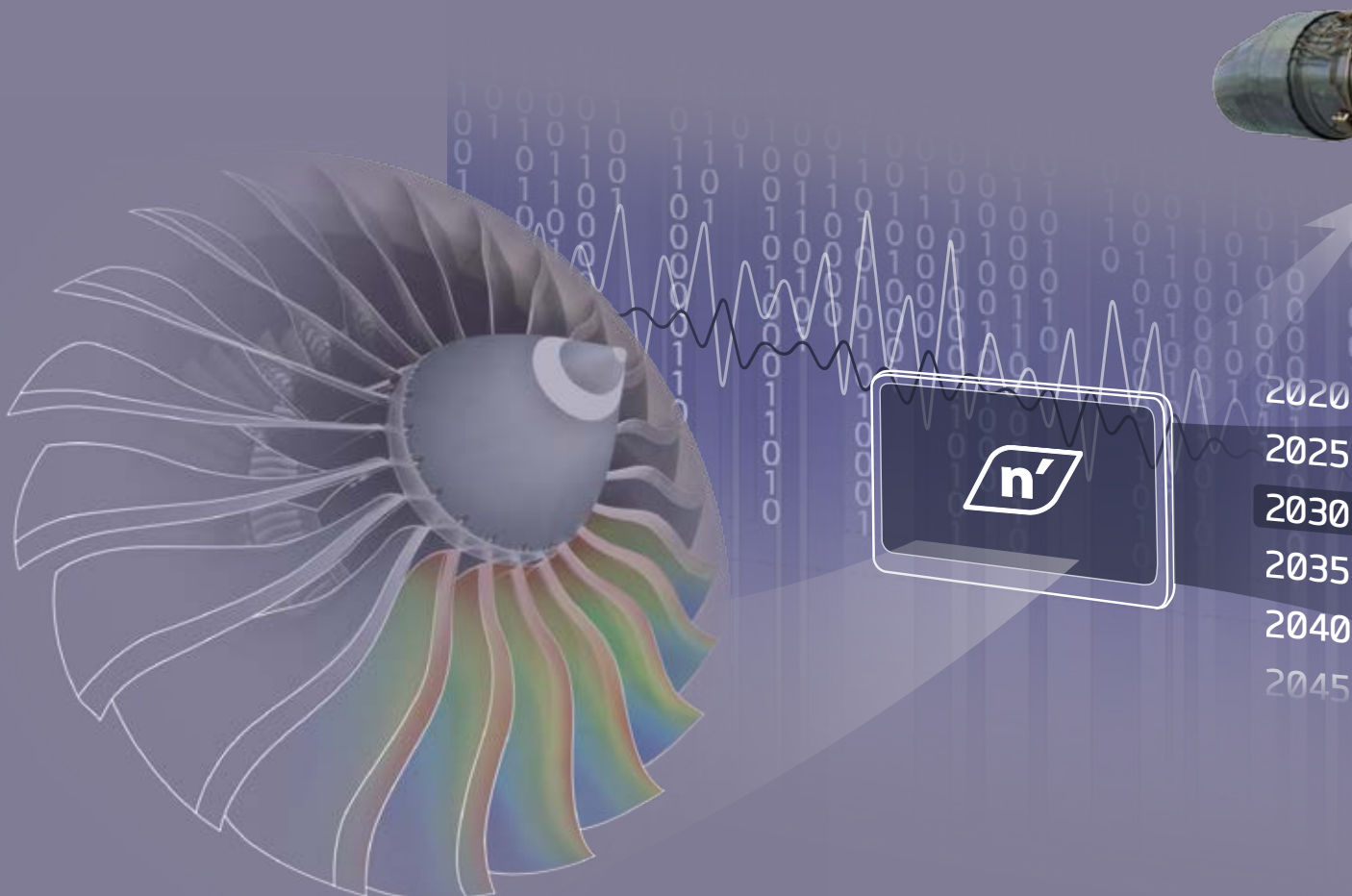


Many questions arise when a new product is being developed. What is the product's expected service life? What is the optimal design to achieve this? Concepts are created, testing is performed and calculations are made. As a result, huge amounts of data are produced. Concealed within this data is valuable information that gives engineers an insight into the future.

nCode software by HBM enables visionary decisions to be made at every step of the durability process. Whether it is processing field data, predicting fatigue life in test and CAE or advanced data management – the future can be calculated through rapid data analysis. Our customers benefit from clear insights into the fatigue of products and components.

"We selected DesignLife because it combines an intuitive interface, the analysis functionality we needed for rotating machinery, as well as the ability to use complex load cases. nCode engineers worked with us during the evaluation process, ensuring that the DesignLife solution meets our needs."

Dr. W. Meeusen,
Head of Product Technology at
Hansen Transmissions



108

glyphs for data processing

52

file formats supported

1.

GL RC* certified software for
calculation of the fatigue
strength of critical components
in wind turbines

*Germanischer Lloyd Renewables Certification



Innovative aircraft: synthesizing technology and art. Stay safely on track with reliable test and measurement technology.

Precision gives wings.

Reach goals faster thanks to pioneering
testing technology.



Test and verify



When the fastest sailing boat in the world sets new records, when high-speed trains travel through China, when BMW performs tests on engines in its BA6.2 test bench center, when an A380 lands or NASA provides for the protection of its spacecraft at Kennedy Space Center: HBM plays its part in it.

Our precise transducers, powerful data acquisition systems and analysis software ensure that safe and secure measures are taken – through reliable measurement results in the testing of products and components making sure that our customers reach their goals faster and with greater reliability.

"With a total of 7,000 strain gauge measuring points being required, we were convinced by the reduced installation cost and time, increased noise immunity and easy extensibility offered", explains Detlev Bauer from IABG giving the reasons for using a data acquisition system from HBM in Airbus A380 fatigue testing.



Testing and verifying with HBM

0.0005 %

the highest proven accuracy
in strain gauge measurements
since 1980

75 g

rugged data acquisition systems
withstand 75 g in shock tests

100 MS/s

measurement technology for
physical quantities up to 100 MS/s
sample rate



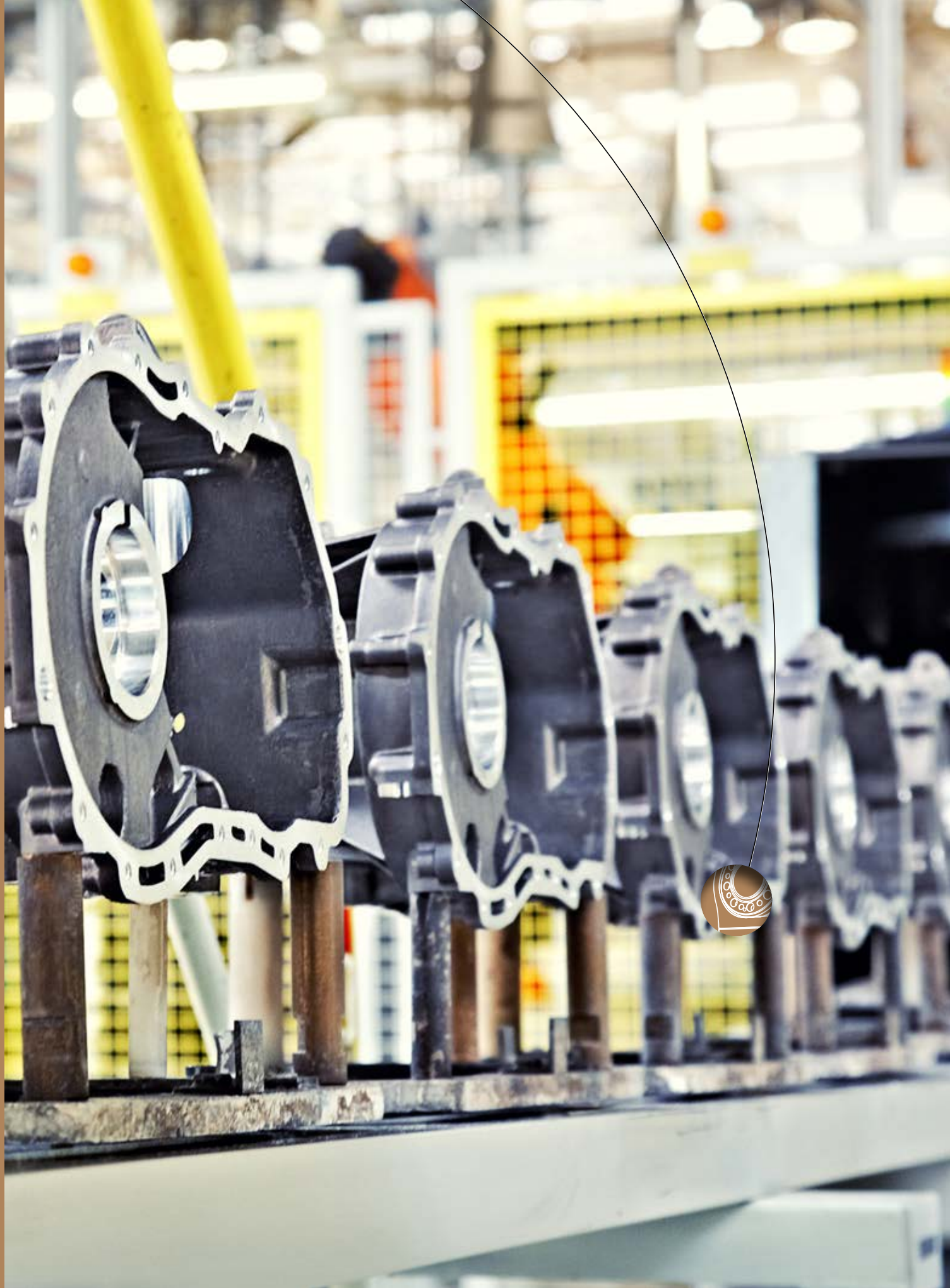
The most efficient transmission ... developed and manufactured with the most precise torque transducer.

Quality in series:

We help produce masterpieces,
one by one.

Manufacture, operate,
monitor





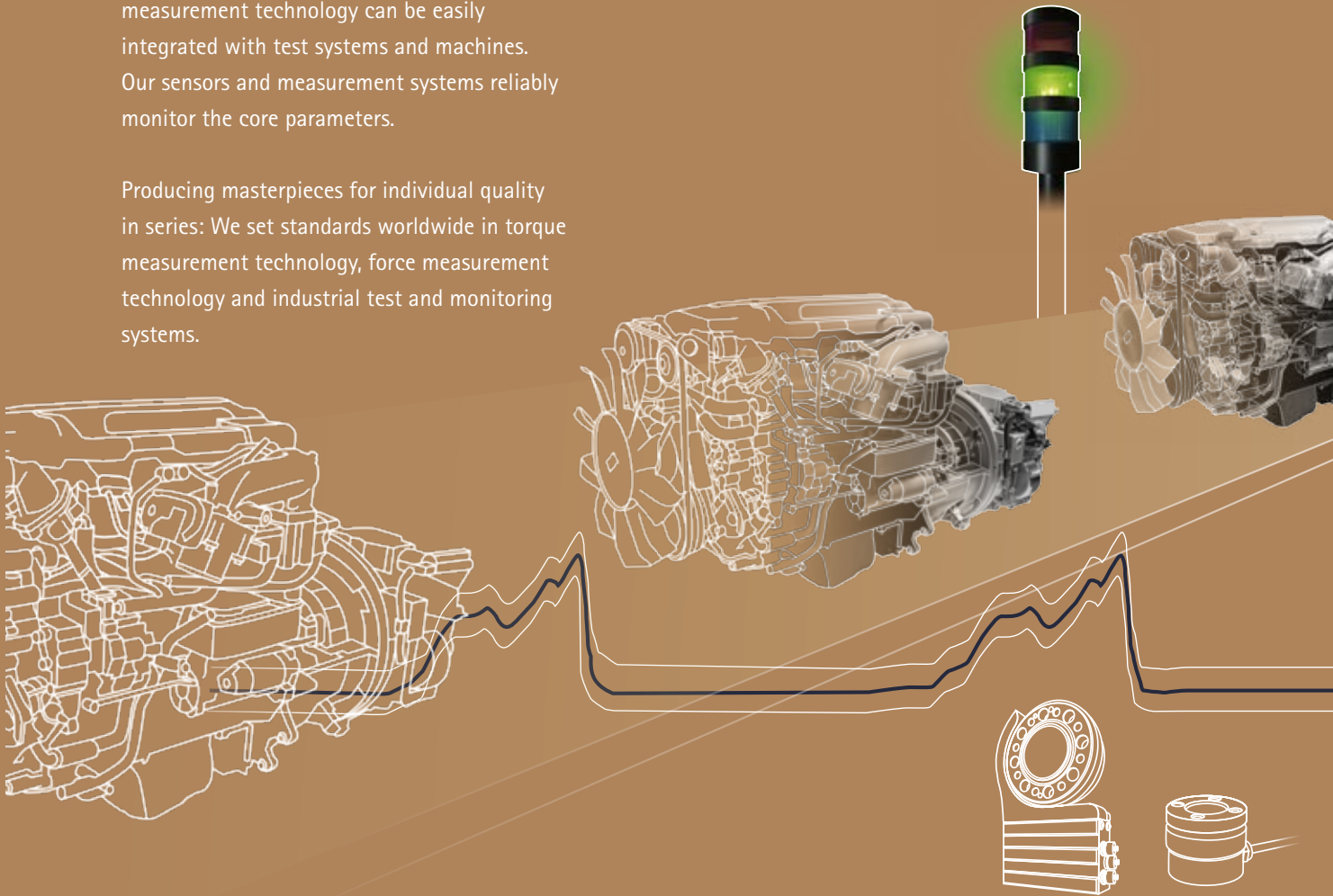
Whether it is consumer goods, motor vehicles or machines – the requirements for efficient production are increasing. This means that costs need to be reduced and quality enhanced. Only those who know how to translate these success factors to the world market can be one step ahead of the competition.

HBM enables efficiency and quality to be planned. Our intelligent and rugged industrial measurement technology can be easily integrated with test systems and machines. Our sensors and measurement systems reliably monitor the core parameters.

Producing masterpieces for individual quality in series: We set standards worldwide in torque measurement technology, force measurement technology and industrial test and monitoring systems.

"We have opted for HBM industrial measurement technology products because of their incomparable reliability and precision. HBM has always offered us superior test and measurement solutions that help us to use advanced technologies in the development of our vehicles."

Kazuhiro Sugata,
Manager of Measurement Development Group,
Nissan Motor Co., Ltd, Japan



Industrial measurement technology from HBM

Number 1

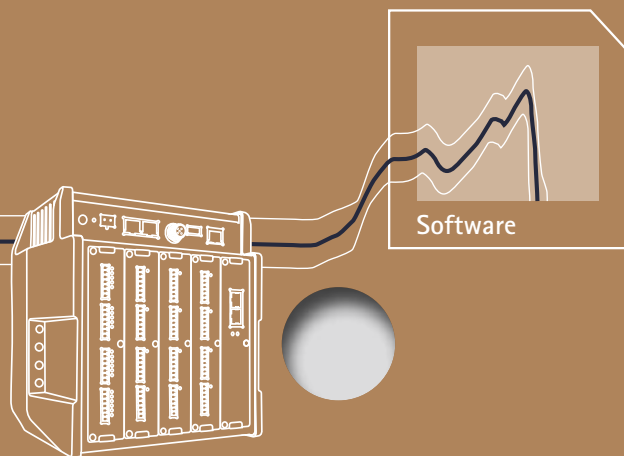
the most precise torque
flange in the world

6 Sigma

zero-defect production

100 %

tested quality



Achieving quality through precision. High-accuracy weighing technology provides correct answers.

Every weight class has a
world champion.

Winning in every class:
precision, safety, reliability.

Manufacture, operate,
monitor





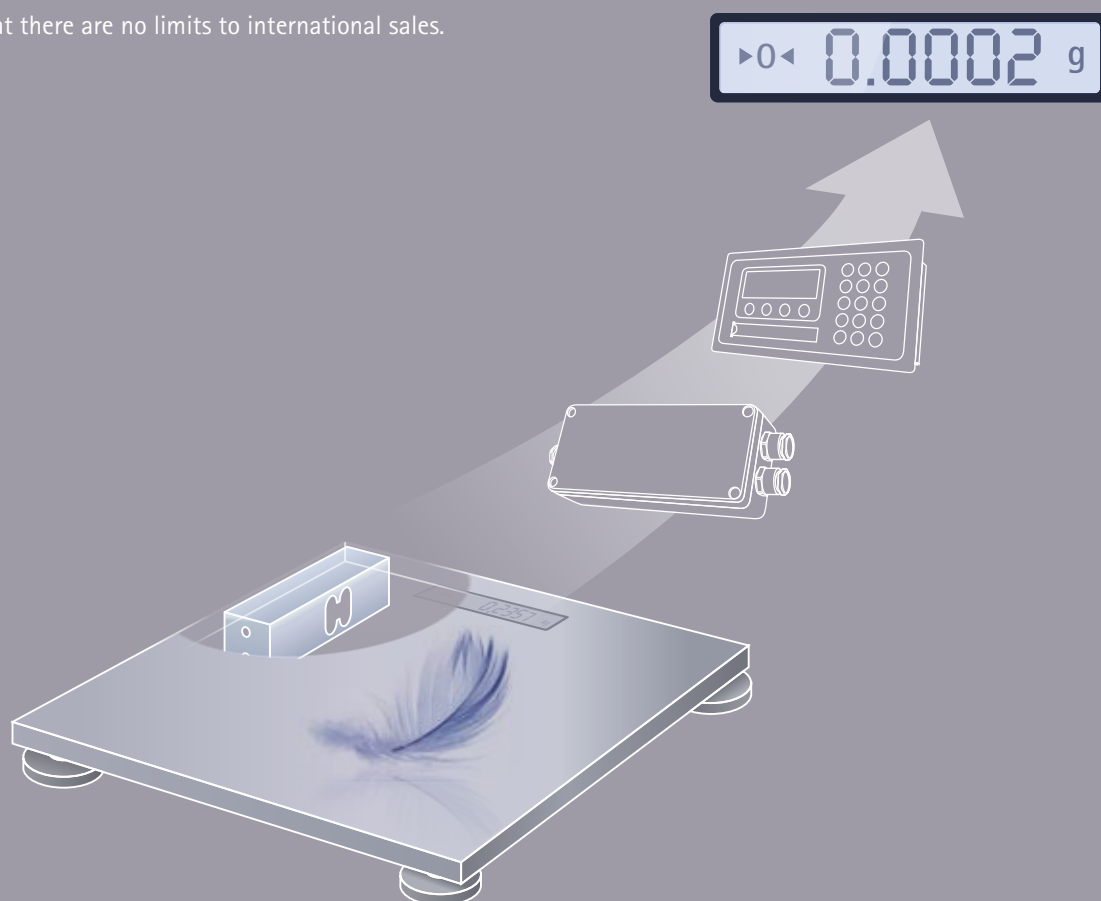
People experience weighing technology on a daily basis. Consumers trust that shop counter scales are correct and the weight shown on food packaging is accurate.

HBM guarantees uniform quality in these applications. Whether it is the weighing of small or large loads, in dynamic weighing or scale manufacturing – precision lies in the detail.

For this reason, it goes without saying that maximum accuracy is key to the production of our load cells and weighing electronics – as well as compliance with regional and global standards, so that there are no limits to international sales.

"HBM load cells guarantee reliable results and consistent quality in dosing processes in XCMG cement mixing plants."

Zhang Yao,
Head of the Cement Mixing Plants division,
Xuzhou Construction Machinery Group



Weighing technology from HBM

100 g – 470 t*

*0.2 lbs – 1,4 klbs

load cells for all
weighing technology
applications

6000 divisions

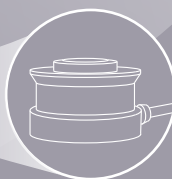
C6 quality load cells

1st

load cell with low
maximum capacity
to be certified for
hygienic design
applications



►0◄ 22.31 t



Idea. Vision. Innovation.

1950



1950



The first product:
The KWS amplifier
for measuring force,
displacement and
vibration

1970



Introduction of the
amplifier KWS/6E-5

1977



HBM opens the first
calibration lab of the
German Calibration
service (DKD), now
DAkkS.

1986

**ISO
9001**

HBM is the first
German company with
ISO 9001 certification.

The engineer Karl Hottinger founds Hottinger Messtechnik in a small Bavarian town in Germany with just 10 employees at the start. The first products are KWS amplifiers as well as an inductive displacement transducer with plunger.

1955



HBM relocates to Darmstadt,
Germany.

1973



HBM founds its American
subsidiary in Marlboro, MA,
USA.

1968 - 2008



12 European branch offices
founded over 30 years

We are working today on tomorrow's measurement technology

Every innovation is preceded by an idea. This idea becomes a vision which questions the boundaries of what was previously known. The company history of HBM has been characterized since 1950 by people whose motivation and passion is the development of metrological innovations.

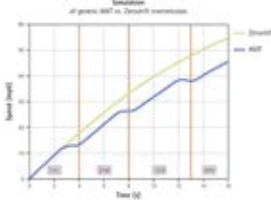
Since the beginning, striving for innovation has been central to our company culture. Our engineers work every day around the world on new metrological products that guarantee our customers precise and reliable measurement results so that they can continue to rely on HBM in the future.

1991



The HBM test laboratory for EMC and instrument safety is accredited as the first in Germany.

1995



The first version of catman® measurement software

1996

**ISO
14001**

Environmental management: HBM is one of the first companies to be certified to ISO 14001.

2006



Introduction of the digital torque measurement system T12

2007



Introduction of the universal data acquisition system QuantumX by HBM

1997



HBM founds its Chinese branch office in the city of Suzhou with connected production site.

2000



HBM is acquired by Spectris plc.

2008



HBM acquires the companies nCode and SoMat and expands its portfolio with additional data acquisition systems and software solutions. The HighSpeed data recorder family Genesis, previously sold under the LDS Nicolet* brand, is launched.



Our measurement technology helps
pioneer the way to the stars.

And on earth we are represented
in 80 countries.

The Mercury mission BEPICOLOMBO*: static component testing of the MTM propulsion module using a data acquisition system from HBM

* A joint mission of the European Space Agency (ESA) and
the Japanese Space Agency ISAS/JAXA



HBM around the world

Over 20 HBM branch offices and approximately 60 representatives worldwide guarantee competent consultancy and first class service. As a multinational company, we provide our customers with optimal test and measurement solutions and support – whenever and wherever needed.

HBM's global presence allows for production, research and development on an international scale. The diverse perspectives, experiences and know-how of our specialists merge to provide our customers with safety and efficiency for their applications.

Our global team speaks over 30 languages. Our measurement data speaks just one: precision – renowned worldwide.



Safe – Compliance with international and national standards

Close – Local contacts on all continents

Individual – We speak 30 languages with customers around the world

International – Production sites and development centers on three continents



Local representatives

80

countries

4

development
centers

3

production sites



- Production sites
- Product development centers

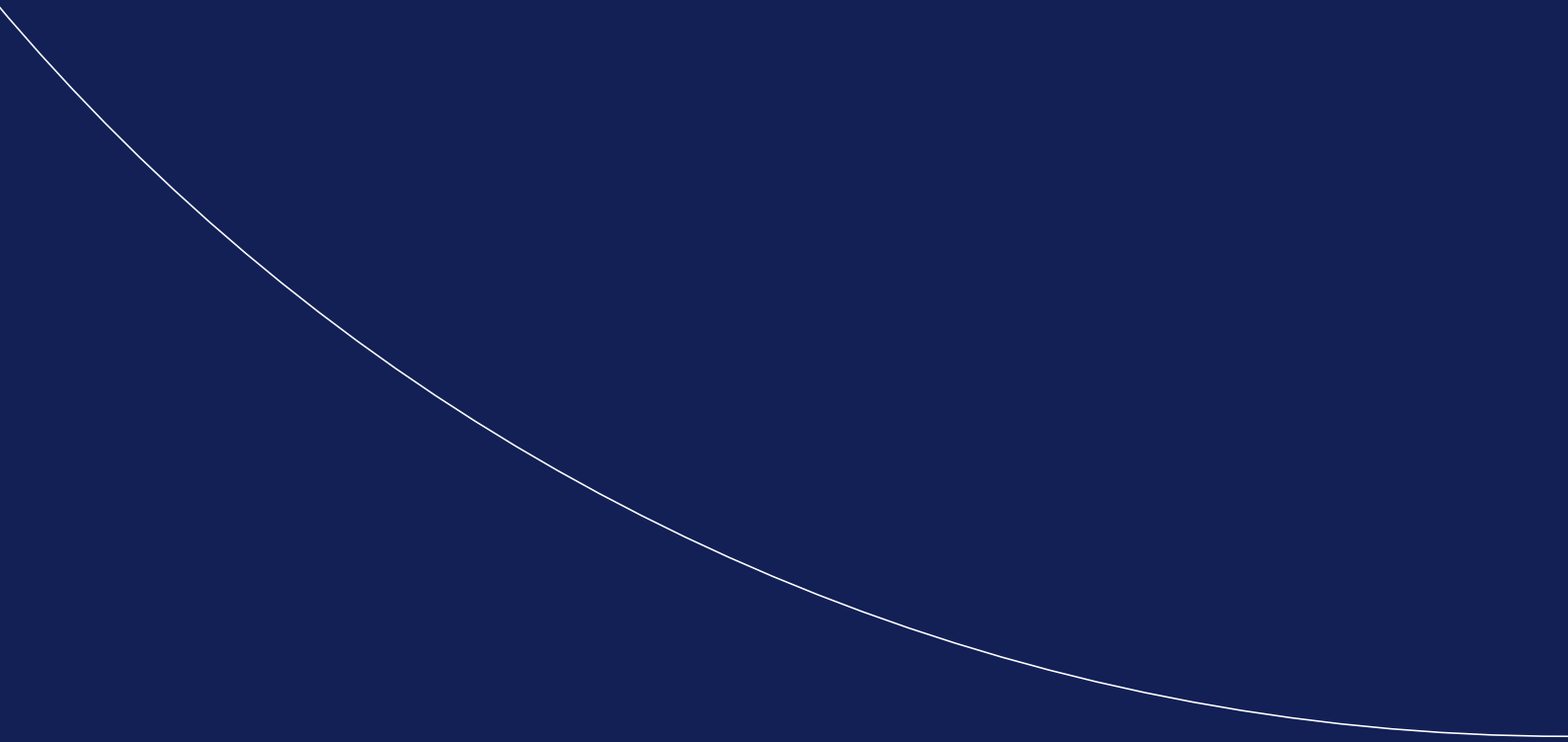


es to communicate
world



Perfectly harmonized.

Our products at a glance.





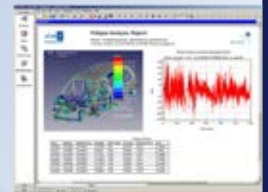
... the complete product line can be found at hbm.com

Software

Fatigue and durability analysis

nCode GlyphWorks, nCode DesignBuilder, nCode Automation

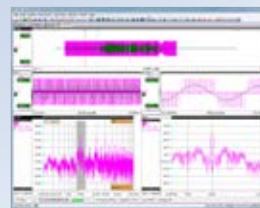
Robust software solutions for test and durability analysis. Users benefit from unattended automated data management and evaluation to solve real-world design problems and accelerate the product development.



Huge amounts of data in few seconds

Perception

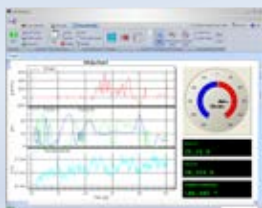
The world's leading, award-winning software for high-speed measurement data acquisition. Patented StatStream technology enables huge amounts of data to be visualized, transmitted and stored in few seconds. Hundreds of high-speed channels are available to users.



Visualization and real-time calculations

catman®

From simple applications to complex structural analysis involving several thousand measurement channels: catman always offers the right package. Thanks to its intuitive user interface, this data acquisition software provides powerful visualization options and facilitates real-time calculations and control of complex measurement tasks.



www.hbm.com/products

HBM Test and Measurement
www.hbm.com

Europe, Middle East and Africa

Tel. +49 6151 803-0 · Email: info@hbm.com

The Americas

Tel. +1 800 578-4260 · Email: info@usa.hbm.com

Asia-Pacific

Tel. +86 512 6824 7776 · Email: hbmchina@hbm.com.cn

Publisher

HBM Test and Measurement
Im Tiefen See 45
64293 Darmstadt
Germany

measure and predict with confidence

