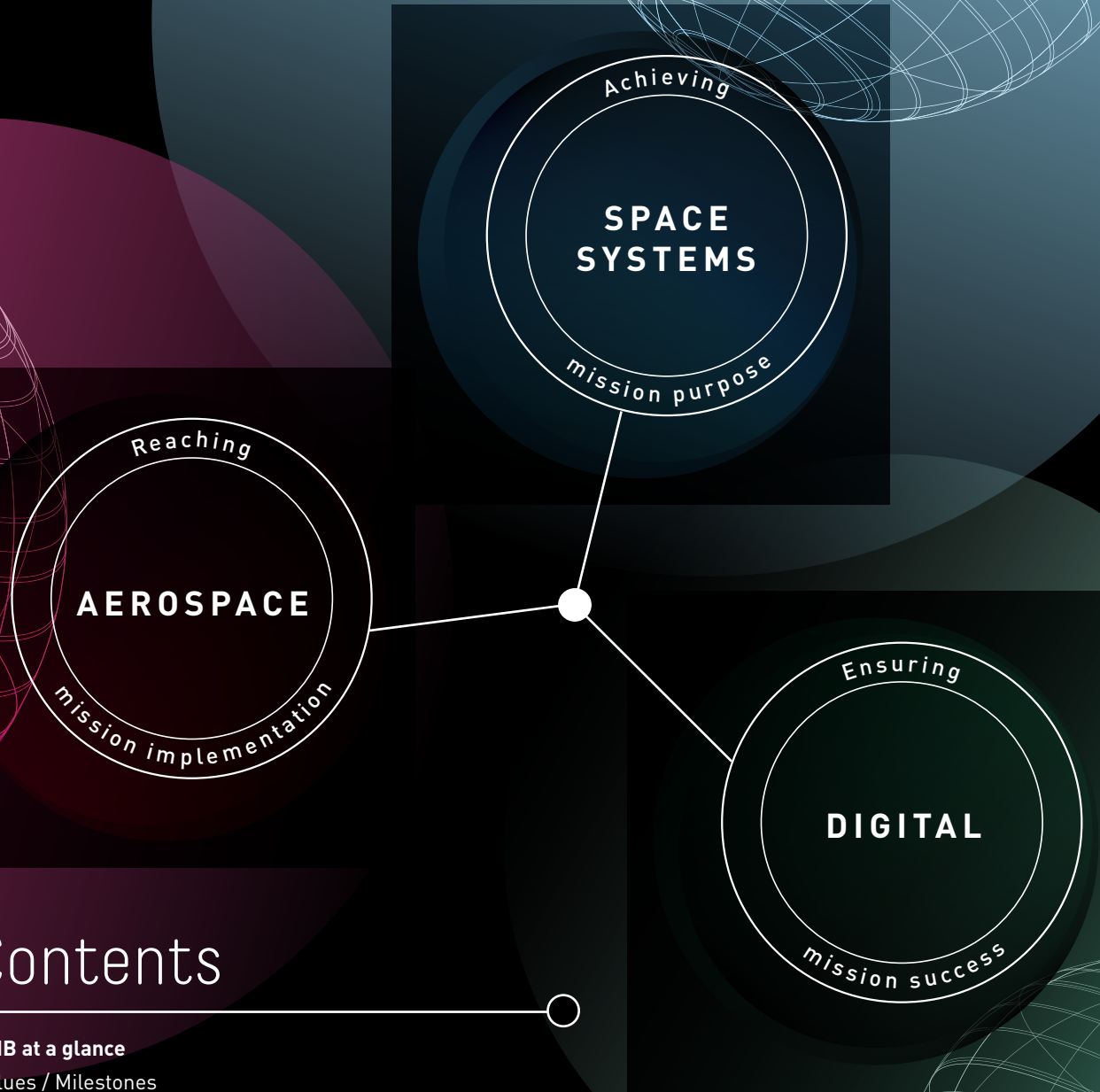


The background features a dark space scene with a view of Earth from space. Three large, semi-transparent globes are overlaid on the scene. The top-right globe is light blue and semi-transparent, showing a white grid of latitude and longitude lines. The bottom-right globe is purple and semi-transparent, also showing a white grid. The left globe is green and semi-transparent, with the text "SPACE FOR YOU" overlaid on it in white, bold, sans-serif font.

# SPACE FOR YOU



# Contents

- 01 OHB at a glance**  
Values / Milestones
- 06 SPACE SYSTEMS**  
Celestial bodies: Danger from outer space / Hera mission / Meteosat Third Generation
- 18 AEROSPACE**  
Flying high: MT Aerospace / Paving the way into space
- 24 DIGITAL**  
Satellite operations: Heinrich Hertz mission / Observing the environment from a distance
- 30 About us**  
Locations / Career / Contact

# “We utilize space to find answers to the complex questions of our time”

In recent years, space has become increasingly relevant for understanding the complex interrelationships on and around our planet. With decades of industry experience, we are able to offer solutions along the entire value chain of the space industry and to democratize access to space-based knowledge, services and products. In short: We imbue the guiding principle highlighted in this magazine with life – SPACE FOR YOU. To this end, OHB is divided into the three business segments: SPACE SYSTEMS, AEROSPACE and DIGITAL. In this brochure, we invite you to join us on a journey through the world of OHB, in which we introduce you to the segments by describing selected activities. Of course, we also let the people who are the most important factor in our success – our employees – do some of the talking. It is our team of over 3,000 people who work day in, day out to make space usable for us all.



A handwritten signature in black ink, reading "Marco Fuchs".

**Marco Fuchs, CEO**

# Our values

OHB is unique in terms of its origin, current scale and diversity: We have developed out of a five-strong Bremen-based hydraulics company into one of Europe's leading independent space technology groups.

Our success comes from our courage, unconventional ideas, above-average commitment and unique teamwork.





## Courage, ideas and visions

Starting up a space technology company was anything but an ordinary idea over 40 years ago. The projects were complex and large; the competition strong. Yet, with a high level of personal commitment and a healthy dose of diligence, tenacity and courage, the team headed by the founding Fuchs family took on the task of breaking down old structures and making space systems smaller and more efficient. Even today, this pioneering spirit can still be felt across all the Group companies.

## Developer culture and team spirit

Satellites, launchers and space systems are not produced on the assembly line, but are sophisticated, handmade systems that incorporate the expertise and creativity of many intelligent minds. Our greatest asset is undoubtedly our dedicated, multicultural team. Every single employee contributes their special knowledge and unique skills. We inspire each other and create groundbreaking systems together.

## Self-initiative, responsibility and expertise

Over the years, this expertise has triggered strong growth. In strengthening our organizational structures, we have made sure that all teams can continue to act courageously, resolutely and independently. Decisions are made by those who are the closest to the matter in question. With our open corporate culture, we promote precisely the degree of initiative, courage and willingness to take risks needed to successfully break new ground in space.

## Reliability and freedom

Regardless of the vision and the occasionally rapid growth impulses one thing has never changed at OHB: We have remained a family-run company for more than four decades. This means clarity, stability and reliability for our team and our customers. Driven by the trust built up over the years and the range of our skills, we will continue to grow and take on responsibility for larger programs. We leverage this freedom to implement our own, socially relevant ideas.



# Milestones

(→01) **1980s**

## ONE SMALL STEP FOR A SINGLE PERSON

Christa Fuchs acquired Otto Hydraulik Bremen, OHB for short, in 1981. At that time, it had five employees who repaired electrical and hydraulic marine systems for the German federal armed forces. She employed the first engineers and experts, thus laying the foundations for OHB SE's growth. Her husband, space pioneer Manfred Fuchs, joined the company in the middle of the decade with his idea and vision of offering satellites that are significantly smaller and more cost-effective but offer superior performance.

(→02) **1994**

## SATELLITES AND ENTRY INTO TELECOMMUNICATIONS

BremSat was the first satellite made by OHB to be launched. It showed that satellites could also be small and inexpensive. At the same time, the two in-house SAFIR satellites, with which OHB entered the telecommunications and telematics market, were developed.

(→03) **1995**

## GROWTH AND THE ENTRY OF THE NEXT GENERATION

Telematics and the expansion of space business brought attorney Marco Fuchs into his parents' still small high-tech company.

(→04) **2001**

## THE MAJOR BREAKTHROUGH: IPO AND SAR-LUPE

By the time OHB successfully went public, Manfred Fuchs and his team were working on a project that was destined to be a breakthrough for the company: the SAR-Lupe reconnaissance system. The overall concept proved convincing, as a result of which OHB was awarded the contract worth around EUR 320 million – ten times its annual revenues at the time.

(→05) **2000s**

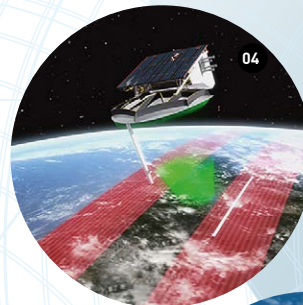
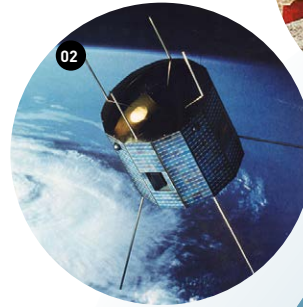
## GROWTH THROUGH ACQUISITIONS AND START-UPS

Acquisitions and start-ups in Germany and Europe generated further growth. For OHB, this results in the entry into the launch vehicle and telescope business, the acquisition of a 10-percent work share in the European Ariane 5 program and the development of its own geostationary satellite platform SmallGEO.

(→06) **2010**

## FURTHER BIG-TICKET PROJECTS GAINED

Defying many industry experts' expectations, OHB was awarded the contract for the full first tranche of 14 satellites for the new European Galileo navigation system. Over the following years, a further 20 satellites were ordered successively. Together with Thales Alenia Space, OHB achieved another sensation, when the consortium gained the contract for the MTG weather satellite program.

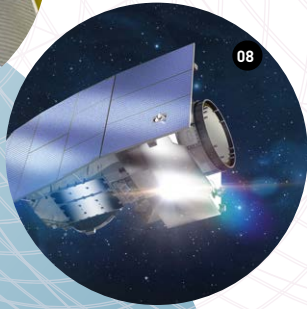




(→07) 2013

**SAR-LUPE FOLLOWED BY SARAH**

The SAR-Lupe reconnaissance system is running very successfully, but as with all satellites, its service life is inherently limited. Accordingly, OHB was commissioned with the development of SARah to ensure the availability of a replacement system.



(→08) 2017

**GREEN LIGHT FOR ANOTHER RECONNAISSANCE PROJECT**

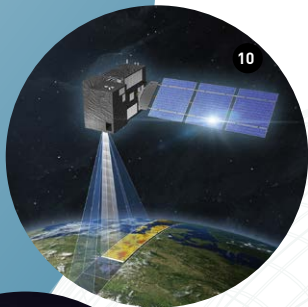
OHB signed the contract for the development of a further reconnaissance system. With a budget of up to EUR 400 million, this system is to be used for global electro-optical reconnaissance.



(→09) 2019

**ASCENT TO BECOME A BILLION-EURO GROUP**

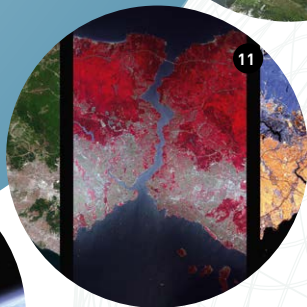
A significant economic milestone was announced at the annual press conference, when the OHB Group's total revenues reached EUR 1 billion for the first time in 2018.



(→10) 2020

**PRIME CONTRACTOR IN THE COPERNICUS PROGRAM**

Conducting studies to extend the European Copernicus Earth observation program paid off, when OHB was selected as prime contractor for the CO2M mission and as subcontractor for the CHIME and CIMR missions. The purpose of the CO2M satellites is to measure for the first time the quantity of climate-damaging carbon dioxide that is actually released into the atmosphere as a result of human activities.



(→11) 2022

**EnMAP LAUNCHED**


ENMAP, the first hyperspectral satellite to be developed and built in Germany, was launched and has been providing data in the fight against climate change and environmental degradation since then. In developing the hyperspectral instrument, OHB performed pioneering technical work, simultaneously mastering a level of complexity unprecedented in its history.



(→12) 2023

**PAVING THE WAY TO BECOMING THE LEADING PROVIDER OF SPACE SOLUTIONS IN EUROPE**

OHB signed an investment agreement with KKR, under which the investor will be acting as a strategic minority investor in order to support OHB in implementing its growth strategy. The Fuchs family will retain permanent control of the company.



Achieving

**SPACE  
SYSTEMS**

mission purpose

**GREENER, MORE SECURE  
AND MORE CONNECTED**

Environmental and weather satellites

Reconnaissance satellites

Space safety missions

Telecommunications and  
navigation satellites

**CURIOUS AND ASPIRING**

Science and exploration  
missions





“I am incredibly proud to have had the privilege of working on projects such as Galileo and MTG. When I track the satellites via an app and know that I built these satellites, it gives me an incredible feeling. We are a diverse team of tech enthusiasts who take on challenges, who are brave and who do great things together.”

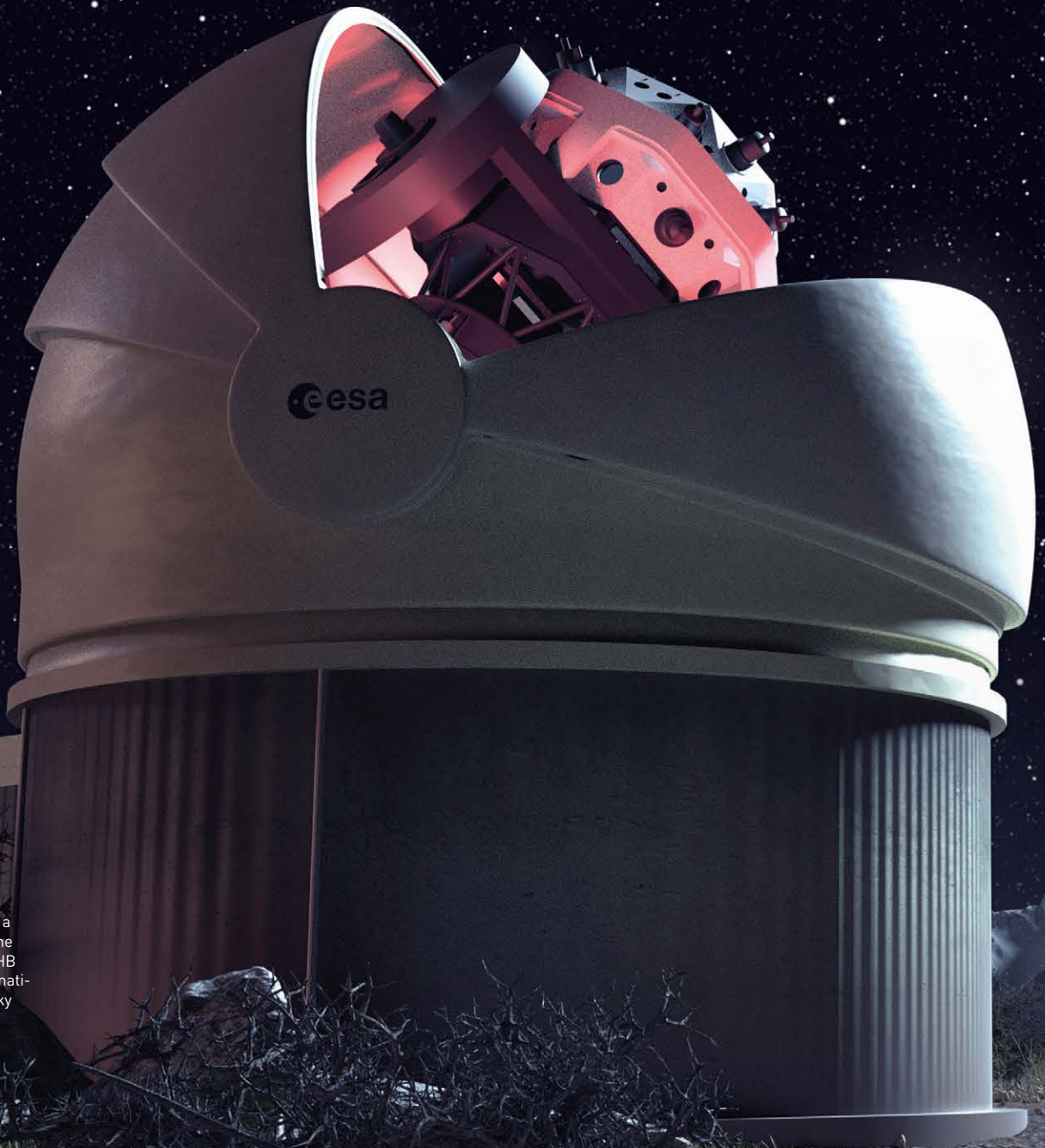
**Jean Lorenz**

Head of E-AIT, OHB System AG

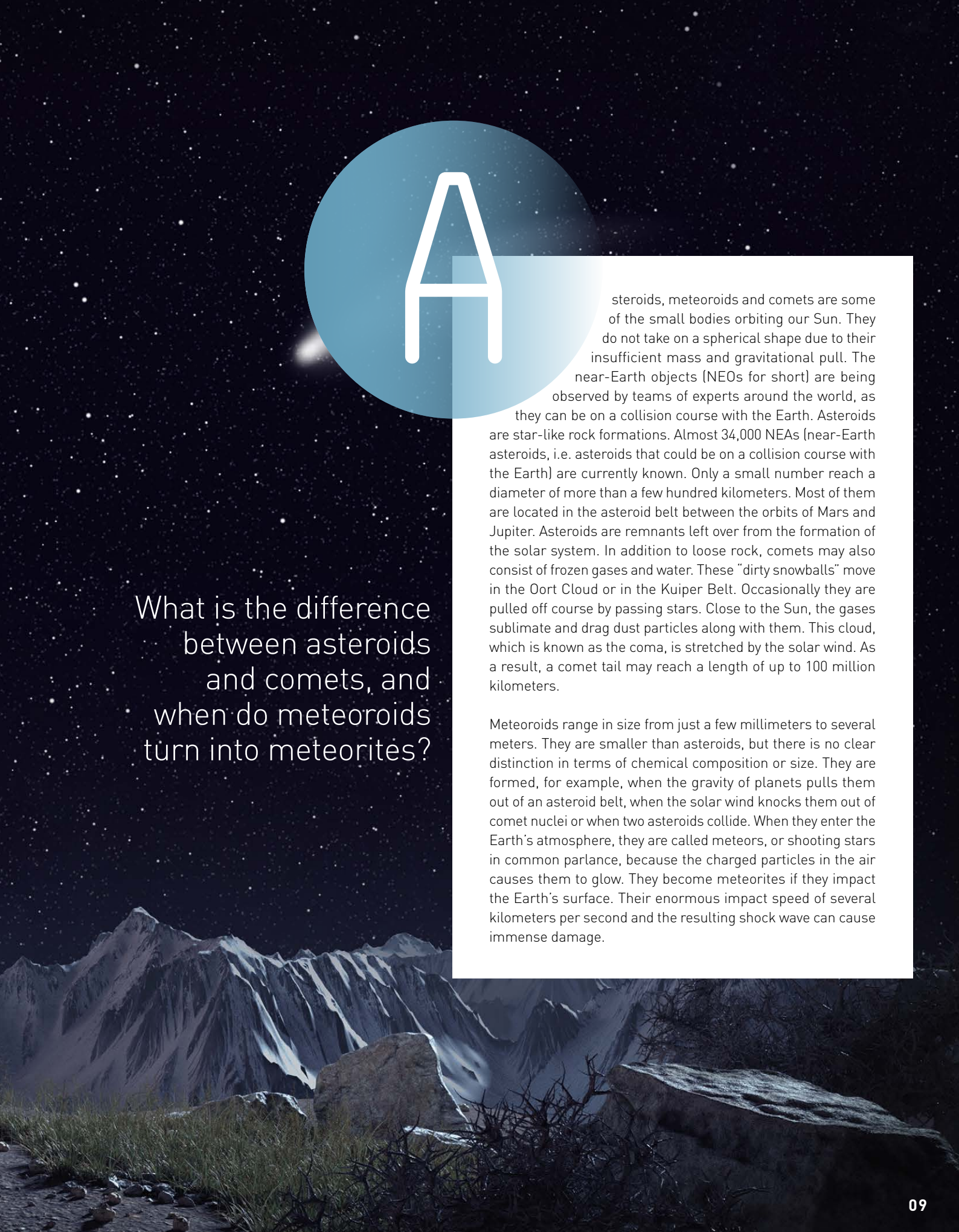


In the SPACE SYSTEMS segment, we develop space systems for all applications. The satellites or probes not only provide a reliable and readily available source of data for assessing climatic changes on the Earth or for navigation, but also form the infrastructure for secure data transmissions that can be used for a wide variety of communication applications. They also focus their attention on our solar system and beyond: Our satellites, probes and telescopes allow us to better understand the diverse interrelationships in the universe and identify potentially dangerous objects so that we can take precautions for our planet in the future.

# Confusion can easily arise in the realm of celestial bodies



Artist's impression of a "Flyeye" telescope. The telescopes built by OHB Italia S.p.A. can automatically scan the night sky for potential dangers such as asteroids.



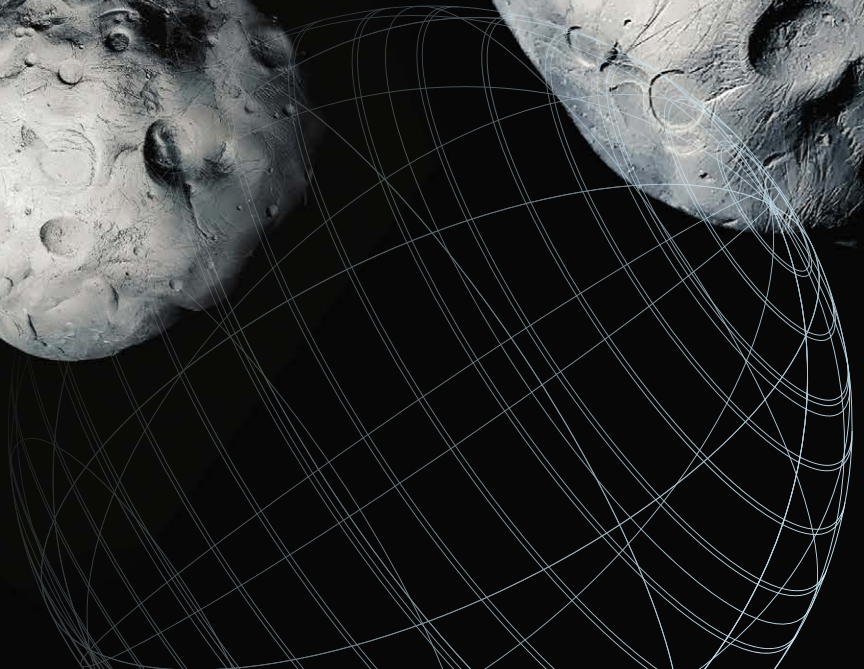
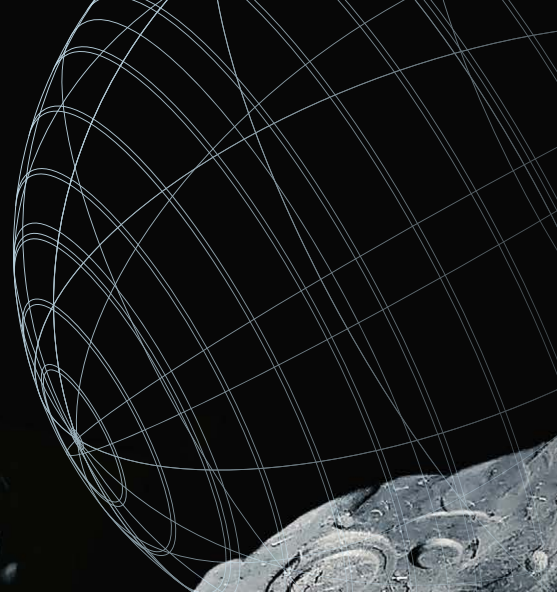
What is the difference between asteroids and comets, and when do meteoroids turn into meteorites?

A

Asteroids, meteoroids and comets are some of the small bodies orbiting our Sun. They do not take on a spherical shape due to their insufficient mass and gravitational pull. The near-Earth objects (NEOs for short) are being observed by teams of experts around the world, as they can be on a collision course with the Earth. Asteroids are star-like rock formations. Almost 34,000 NEAs (near-Earth asteroids, i.e. asteroids that could be on a collision course with the Earth) are currently known. Only a small number reach a diameter of more than a few hundred kilometers. Most of them are located in the asteroid belt between the orbits of Mars and Jupiter. Asteroids are remnants left over from the formation of the solar system. In addition to loose rock, comets may also consist of frozen gases and water. These "dirty snowballs" move in the Oort Cloud or in the Kuiper Belt. Occasionally they are pulled off course by passing stars. Close to the Sun, the gases sublimate and drag dust particles along with them. This cloud, which is known as the coma, is stretched by the solar wind. As a result, a comet tail may reach a length of up to 100 million kilometers.

Meteoroids range in size from just a few millimeters to several meters. They are smaller than asteroids, but there is no clear distinction in terms of chemical composition or size. They are formed, for example, when the gravity of planets pulls them out of an asteroid belt, when the solar wind knocks them out of comet nuclei or when two asteroids collide. When they enter the Earth's atmosphere, they are called meteors, or shooting stars in common parlance, because the charged particles in the air causes them to glow. They become meteorites if they impact the Earth's surface. Their enormous impact speed of several kilometers per second and the resulting shock wave can cause immense damage.

# Danger from outer space



## How the Earth can be protected from dangerous asteroids

Well over 1 million asteroids have already been discovered in our solar system. A good 1,500 of these are on the European Space Agency's (ESA) risk list due to their trajectory and size and are under special observation. However, ESA and other space agencies are not only observing these asteroids but also working on possible models and missions that could prevent serious or even disastrous asteroid impacts on the surface of the Earth in the future.

Compared to the increasingly visible consequences of environmental destruction, species extinction and climate change, the threat to humanity from asteroid impacts seems rather remote. However, events such as the Tunguska explosion on June 30, 1908 and the impact of the Chelyabinsk asteroid on February 15, 2013 show that the danger is tangible.

The Tunguska explosion was most probably caused by the entry of an asteroid with a diameter of 30 to 40 meters into the Earth's atmosphere. It exploded some five to fourteen kilometers above the ground, causing a shock wave that uprooted trees over an area of more than 2,000 square kilometers in what is now the Krasnoyarsk region of northern Siberia, smashing windows and doors in the trading settlement of Wanawara, 65 kilometers away. Even in Kirensk, 450 kilometers away, eyewitnesses were able to observe a rising cloud of dust. However, an impact crater was never found. For this reason, it is assumed that the asteroid broke into many small pieces before hitting the Earth. Despite an explosive force comparable to several megatons of TNT, the damage caused in the sparsely populated area was still comparatively minor. By contrast, almost 1,500 people were injured when an asteroid hit Chelyabinsk. This asteroid also broke apart while still in the air, causing a shock wave that damaged numerous buildings around the city of Chelyabinsk in the Russian Urals. Just over six months after the impact, a fragment of the asteroid weighing more than 570 kilograms was recovered from Lake Chebarkul, 80 kilometers southwest of Chelyabinsk. Experts estimate the diameter of the entire asteroid to have been around 17 to 20 meters.

## Could the impacts of 1908 and 2013 have been predicted?

The impact in 1908 could not be predicted, but the impact in 2013 theoretically could have been. Until 1890, it was only possible to detect asteroids by comparing telescopic observations with existing celestial maps. However, due to the relatively low sensitivity of the human eye to light, this approach meant that only bright asteroids were discovered. It was only with the advent of photography that it became possible to detect faint objects in the sky by using particularly light-sensitive emulsions with long exposure times and tracking them by telescope. As a result, the number of known asteroids increased rapidly.

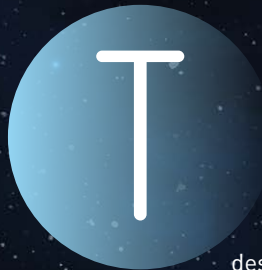
Since the 1990s, the search for asteroids has been carried out using automated search programs. This systematic survey of the sky has led to the discovery of new asteroids almost daily. Nevertheless, the Chelyabinsk asteroid went undetected until its impact. This was partly due to its comparatively small size and also to its approach to the Earth from the direction of the Sun.

## What options are there for warding off asteroids?

The well-filled risk lists of the space agencies and the recurring reports of close flybys show that it is only a matter of time before the next major asteroid comes dangerously close to or even hits the Earth on its orbit through our solar system. Early detection of the object is the first line of defense. The second line involves taking civil defense precautions and developing suitable deflection methods.

One defense method that ESA and NASA are currently jointly testing involves the deflection of an asteroid through the use of a kinetic impactor, i.e. a special space probe. The project is called AIDA (Asteroid Impact and Deflection Assessment).

# The AIDA mission:



The first concept study for the AIDA mission was presented back in February 2015. At the time, it envisaged a mission comprising two space probes: The impact probe DART (Double Asteroid Redirection Test) designed by NASA and the observation probe AIM (Asteroid Impact Mission). The latter was to be contributed by ESA. The near-Earth double asteroid Dimorphos was selected as the target. It consists of a main body with a diameter of approximately 800 meters and a smaller one with a diameter of almost 170 meters, which orbits the main body at a distance of just over one kilometer like a Moon and bears the name Dimorphos. The mission schedule envisaged that DART would impact Dimorphos and that AIM would document the effects and transmit this data to the Earth. However, the ESA Ministerial Conference held in December 2016 did not approve any funding for the mission, something that was tantamount to ESA withdrawing from the project. Despite this, NASA went ahead with the DART mission. The impact and the measurement of the deflected orbit were now to be observed from the Earth.

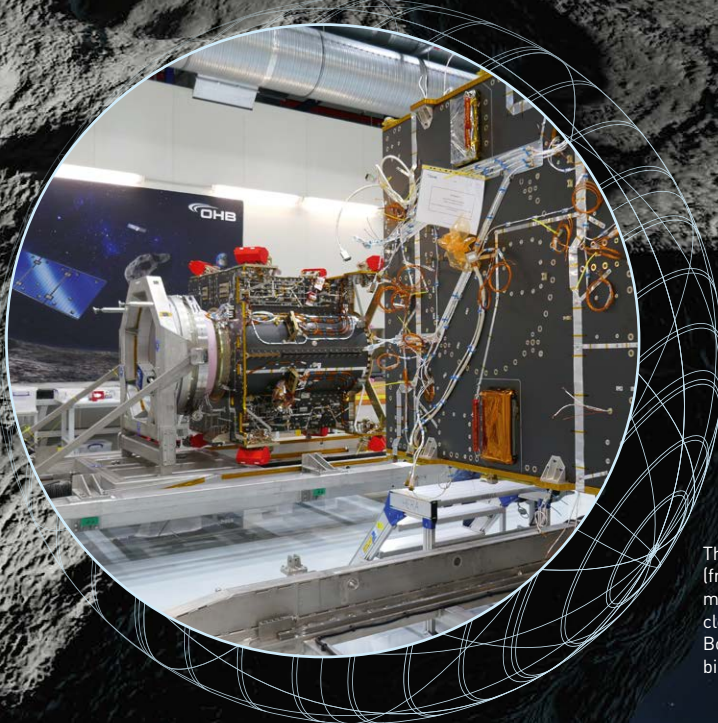
## Hera completed by OHB in just four years

At the ESA Ministerial Conference held in November 2019, the member states approved the concept for an alternative to AIM, known as Hera. The probe is being realized by OHB as prime contractor, with a launch date set for October 7, 2024. This means that the OHB project team had only four years to develop, build and test the probe. This is an extremely short period of time in this industry.

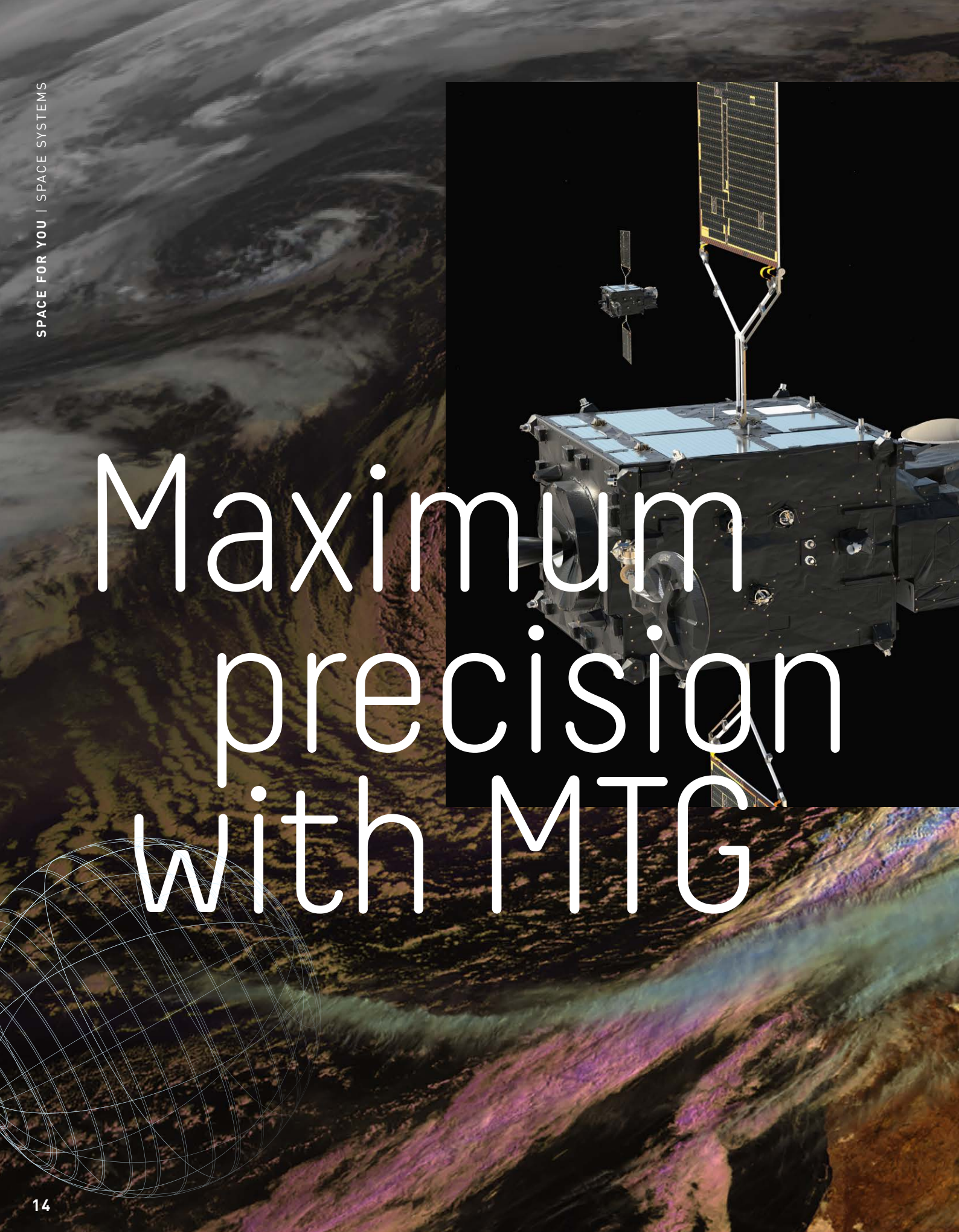
# DART and Hera

The DART probe developed by NASA hit Dimorphos on September 21, 2022 at a speed of around 6.5 kilometers per second. The exact dimensions of the impact crater and the change in orbit resulting from the impact will soon be determined more precisely by Hera. The Hera probe will arrive at the Didymos system in 2026. In addition to its own instruments, Hera is also carrying two mini-satellites, which will detach from the probe after arriving at the Didymos system and execute experiments autonomously.

Only this data provided by Hera permits a comprehensive interpretation of the effects of the impact of DART and, thus, an assessment of the fundamental effectiveness of the methodology used for asteroid defense. The AIDA partnership forged by ESA and NASA with the two missions DART and Hera is thus helping to lay the foundations for a practical planetary defense strategy. Events such as the Tunguska explosion or the impact of the Chelyabinsk asteroid can hopefully be prevented in the future provided the approaching celestial body is discovered in good time.

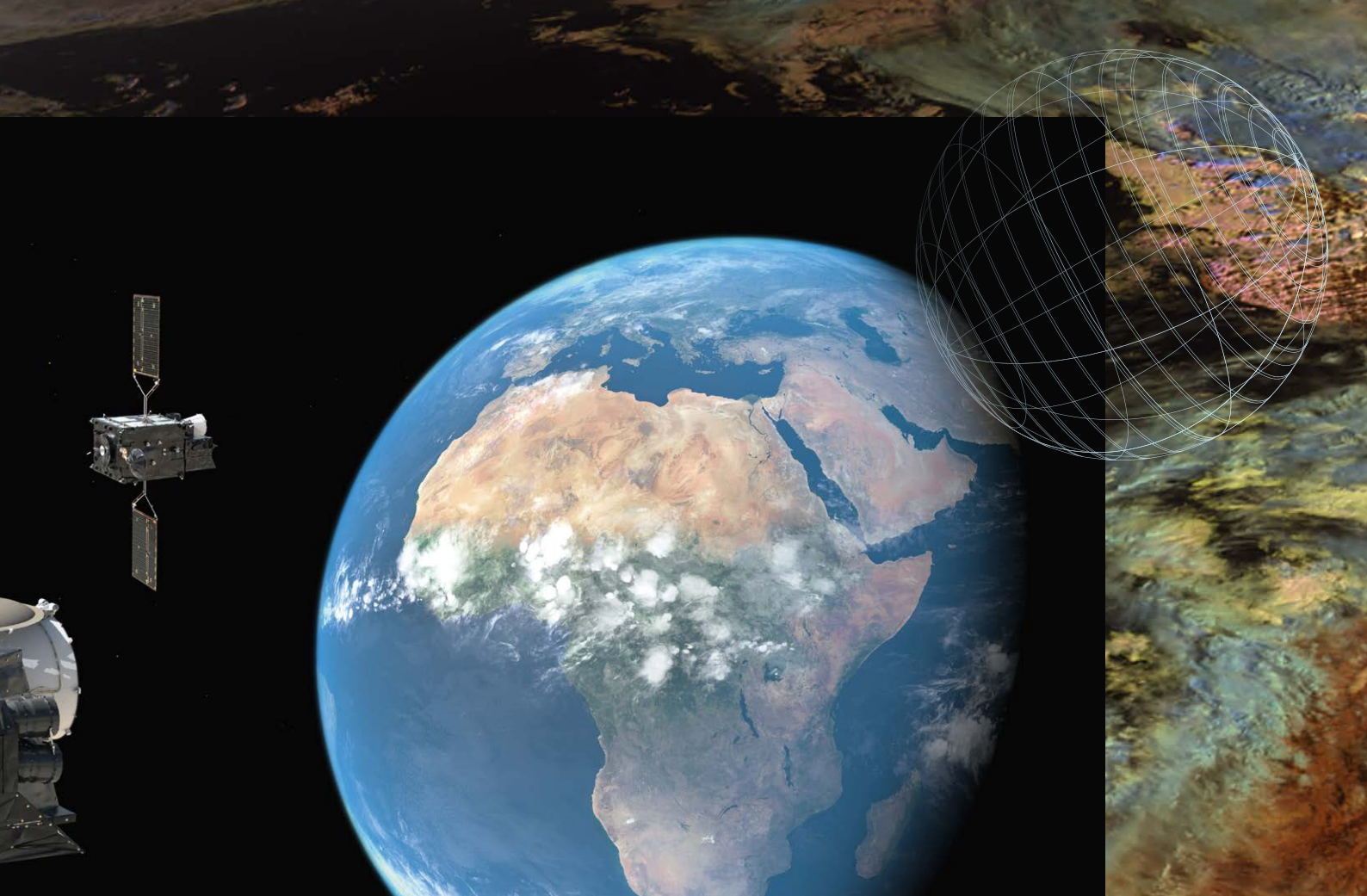


The platform module (front) and propulsion module (rear) at OHB's clean room in Bremen. Both modules are combined during mating.



# Maximum precision with MTG





When extreme weather events are recognized too late, people may be exposed to violent natural phenomena in the short term. Precise forecasting of heavy rain, storms and the like is therefore extremely important to ensure that the necessary precautions are taken in good time.

The **Meteosat Third Generation (MTG)** weather satellite program promises improved forecasting capabilities. In December 2022, the first MTG imager satellite (MTG-I1) was launched into a geostationary orbit – with the material inclusion of OHB technology. Another one is in the starting blocks: In 2025, the first MTG sounder satellite will also be launched. MTG, one of the most complex satellite development programs in Europe, is developing and implementing the third-generation European weather satellites for EUMETSAT (European Organization for the Exploitation of Meteorological Satellites).

Preliminary images from MTG-I1 have already provided an impressive foretaste of what can be expected when the entire system is operational as they show the weather over Europe and Africa in a level of detail that was previously not possible from a geostationary orbit. “We are thrilled and proud that OHB technology is contributing to such a spectacular view of our Earth. Every ten minutes, images from a distance of around 36,000 kilometers are captured in remarkable detail,” say OHB project managers Rupert Feckl and Ian Bennett.

The two MTG sounder satellites (MTG-S) will contain even more technology from OHB, as their IRS (infrared sounding) instrument is a proprietary OHB development. What can humanity expect from MTG-S? “These satellites will revolutionize weather forecasting by offering completely new types of data from a geostationary orbit at an altitude of around 36,000 kilometers. The centerpiece of the MTG sounder mission is an infrared instrument that is installed at our site and was developed in Oberpfaffenhofen, with the detector unit (DEA) and the



Satellite construction in series: OHB is responsible for the construction of all platforms for the MTG weather satellite program.

interferometer supplied by Thales Alenia Space France. It can determine the distribution of temperature and water vapor at different altitudes in the atmosphere. This makes it possible to observe the movement of the air layers in relation to each other and to determine certain areas with local turbulence, which may indicate the development of a storm system. Using this data, the weather services will be able to provide more precise forecasts and also issue much earlier warnings of possible extreme weather events,” says Dr. Rüdiger Schönfeld, whose responsibilities on the Management Board of OHB System AG include Earth observation.

MTG is one of the most complex and innovative satellite systems ever built. Over the next two decades, it will provide improved data for weather forecasting from its geostationary orbit. An outstanding example of European technological excellence, MTG is based on the long-standing partnership between the European Space Agency (ESA) and EUMETSAT. The industrial consortium for the MTG mission is lead-managed by Thales Alenia Space, which is the prime contractor for the MTG Imager satellites, while OHB is the prime contractor for the MTG Sounder mission. OHB is also responsible for all six satellite platforms for the MTG system, the four units of the telescope assembly of the flexible combined imager fitted to the imager satellites and the two IRS instruments on board the Sounder satellites.





# Four questions for Chiara Pedersoli



## **M**s. Pedersoli, how do you find out about the weather?

As a passionate cyclist, I regularly check the weather with an app on my cell phone – the rain radar has come to the rescue for me a few times.

## Resume

### **CHIARA PEDERSOLI**

→ 2001 – 2010

#### **Various positions in the aerospace industry**

DLR, ESA, ESOC, Airbus Defence and Space, EUMETSAT – for example, involved in the early development of the MTG program.

→ 2010

#### **Joined OHB System AG**

Various positions, including responsibility for the functional design of the IRS instrument for the MTG weather satellite program.

→ 2018

#### **Director Systems Engineering and AIT**

Responsible for more than 900 employees in Bremen and Oberpfaffenhofen.

→ 2020

#### **Member of the Management Board of OHB System AG**

In charge of Engineering, Systems Engineering, Software and AIT with around 1,000 employees.

→ 2024

#### **Chief Executive Officer of OHB System AG**

## **Is the MTG program a game changer in weather forecasting?**

Absolutely, with MTG-I1 (launched in 2022) we have already made great strides in monitoring air quality and rainfall as well as in forecasting and analyzing cloud types. The improved severe weather forecast enables better disaster management. For the first time, MTG-S will enable us to observe different meteorological phenomena simultaneously in order to detect and predict rapidly developing weather events more accurately.

## **What do you think makes the mission so special?**

MTG is a very exciting mission – not only in technological terms but also because of its importance for all humanity. The weather plays a very important role in our lives, both directly and indirectly. From a technological point of view, I would like to emphasize that many employees across Europe worked on this mission – always on the cutting edge of what is technologically possible. MTG is a thoroughly European mission.

## **What does the MTG program mean to you personally?**

I worked on MTG for ten years in various roles. The MTG-I1 launch was the first satellite launch I witnessed live and I can't wait to see the images produced by the IRS.



**ACCESS TO SPACE**

Microlauncher  
Launcher components, tanks  
and structures

**RESOURCE-EFFICIENT  
FLYING**

Aero engine components

"For me, it's truly motivating to be involved in the development of a launch vehicle and thus to be part of space flight. I work with system engineering, design, analysis, production development, manufacturing and many other areas. Together with my colleagues, I am very much looking forward to the first Ariane 6 launch, and, obviously, we hope that our components will also fly in future generations."

**Sophie Weiss**

Project Manager Launcher Composites, MT Aerospace AG



In the AEROSPACE segment, we provide access to space and thus enable space missions to be executed. Firstly, with our launcher components, which form an elementary part of the necessary overall system. Secondly, by developing our own launcher to offer a large number of new players in the space industry cost-effective and bespoke access to space.

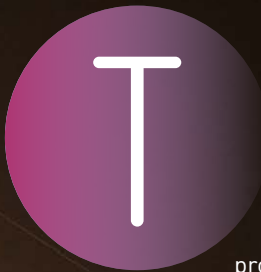
# Flying high

MT Aerospace is shaping  
the manufacturing processes  
of the future



Demonstrator of a tank  
for launch vehicles.

NASA's Space Launch System on its first launch on November 16, 2022.



The subsidiary MT Aerospace AG (MT-A) is a leading international company in the aerospace industry. Its employees develop, manufacture and test components for institutional and commercial launch vehicle programs, satellites and probes, aircraft and applications in the automotive and defense industries.

### Into the air and space from Augsburg

As a supplier with a work share of more than 10 %, MT-A plays a central role in the European Ariane 6 program. The company also supplies commercial US manufacturers such as Boeing with components for the main and upper stages of the launch vehicle called Space Launch System. It also fabricates structural components and tanks for satellites and probes as well as fresh and waste water tanks for use in civil aviation.

### High-quality components from the “printer”

In recent years, MT-A has been investing in additive manufacturing, among other things. This innovative technology enables objects to be produced layer by layer using materials such as metals or plastics. Complex geometries free of any tooling restrictions and individual adjustments ensure high flexibility in order to meet customer requirements to optimum effect.

The state-of-the-art precision machinery can be used to produce prototypes, customized components and products ready for series production. In addition to launcher components for Rocket Factory Augsburg AG, MT-A also supplies manufacturers in the racing and automotive industries with additively manufactured parts.

### Resource-efficient solutions for the launch vehicles of the future

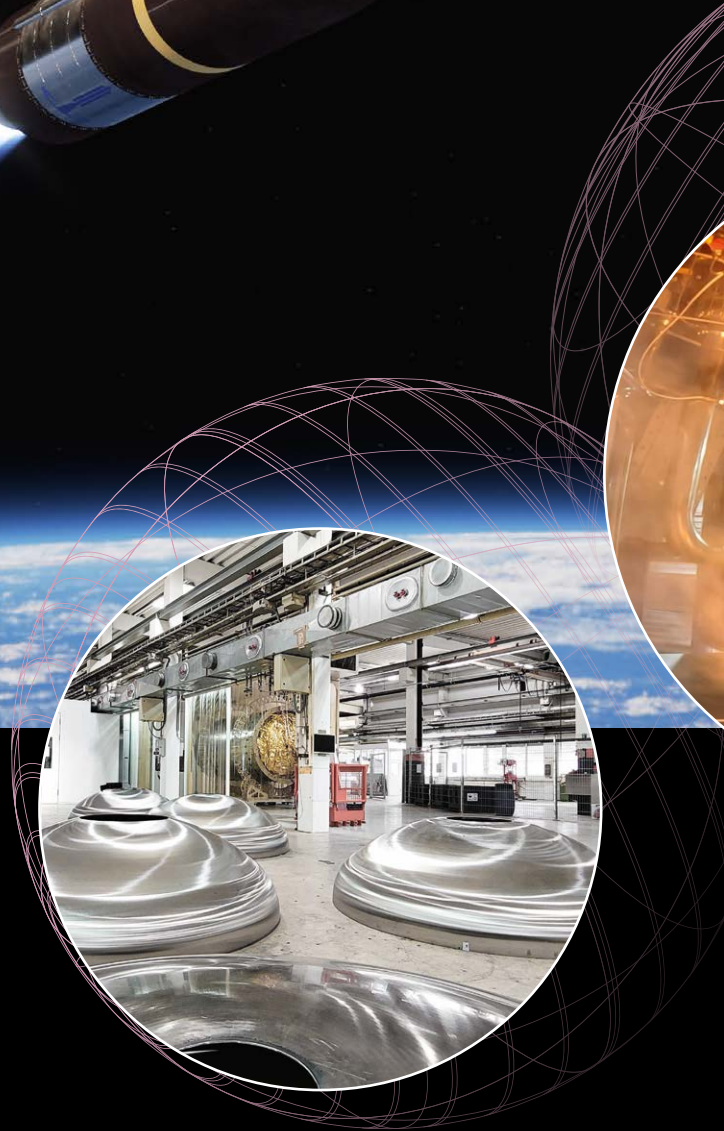
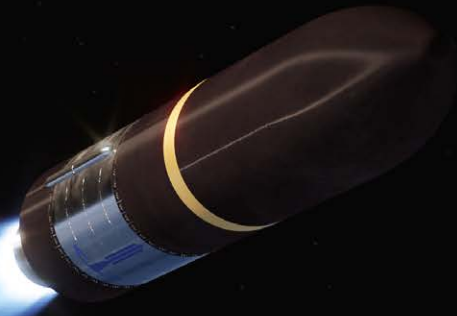
MT-A is dedicated to developing lightweight construction technologies and thus to significantly reducing the ecological footprint – especially in space. To this end, demonstrators made of carbon fiber-reinforced composite materials are being tested and continuously developed for the next-generation launch vehicles. The company is positioning itself as an established partner with innovative solutions for a sustainable future with the aim of manufacturing high-performance products with maximum performance and minimum weight.

Dome segments for the tanks of the European launcher Ariane 6.



# Paving the way into space

Reaching the destination cost-effectively and flexibly



## The Henry Ford moment in space: Building launch vehicles like cars?

OHB has been supporting Rocket Factory Augsburg AG (RFA) since its establishment in 2018 in realizing its own vision: Democratizing access to space to better understand, protect and connect our planet.

To this end, RFA is the first European company to use a proprietary engine with staged combustion for its RFA ONE launch vehicle. The advantage is more efficient use of fuel, thus enabling a larger payload capacity. In addition, RFA adapts serial production processes such as those used in the automotive industry as well as cost-efficient, proven components. The result is the RFA ONE, a low-cost launch vehicle.

Another advantage is its flexible deployment: The launcher can be launched regularly and from different sites around the globe. RFA then guides the satellite precisely into its target orbit.

## Orbit reached. Now what?

After the launch of the RFA ONE, the journey can continue: In addition to the launch, RFA offers its customers further services that go beyond mere access to space, including a transport capsule to carry cargo to the International Space Station ISS and future commercial space stations and back, as well as a microgravity research laboratory.





## Launches from the high seas?

While the US aerospace company SpaceX has been landing parts of its Falcon 9 launcher on floating platforms in the sea for some time now, the German Offshore Spaceport Alliance GmbH (GOSA) is taking to the skies from the sea. As part of the GOSA consortium, OHB is involved in the development and operation of a mobile launch site for microlaunchers in the North Sea.

By providing a cost-effective and flexible launch option, the initiative is contributing to securing sovereign European access to space and at the same time supporting the growing New Space market.





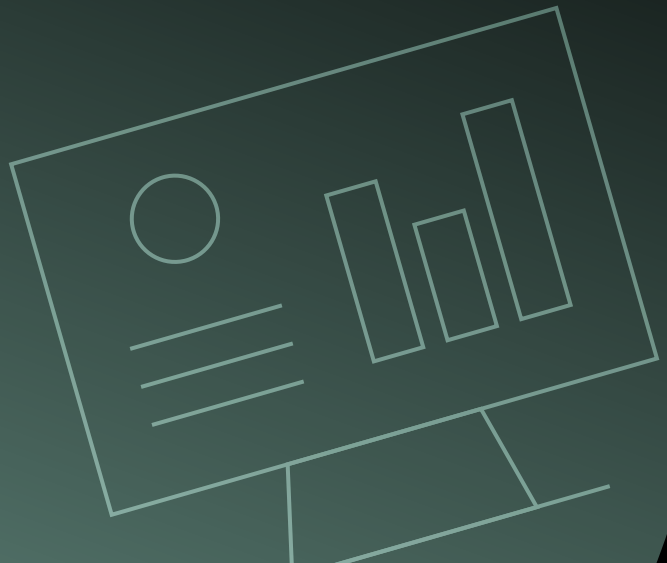
**ESTABLISHING SECURE CONNECTIONS**

Telescopes, ground systems and satellite operations

Cybersecurity, encryption and railroad infrastructure

**UTILIZE FULL POTENTIAL**

Data analytics, applications and professional services



“At OHB, I work with highly motivated teams in one of the world’s most exciting industries with an enormous variety of activities. The innovative solutions we work on every day result in better-informed decisions worldwide.”

**Dr. Arne Gausepohl**

Head of the DIGITAL business segment, member of the Executive Committee, Managing Director of OHB Digital Services GmbH and German Offshore Spaceport Alliance GmbH



In the DIGITAL segment, we provide the link to our space missions. Post-launch, we assume responsibility for the smooth operation of our satellites. Our antennas and telescopes receive information from orbit as well as from the vastness of the universe, providing scientists with unique data. Our software and encryption solutions guarantee data integrity on the Earth and in space. We use our many years of experience to democratize access to technologies and data from space and apply them to new fields of application.

# In operation:

Ground segment  
and antenna stations for  
the Heinrich Hertz mission  
"made by OHB"

The Heinrich Hertz telecommunications satellite – shown here in OHB's Bremen clean room – was launched in July 2023.

OHB can also handle satellite operations from its own multi-mission control center in Bremen.

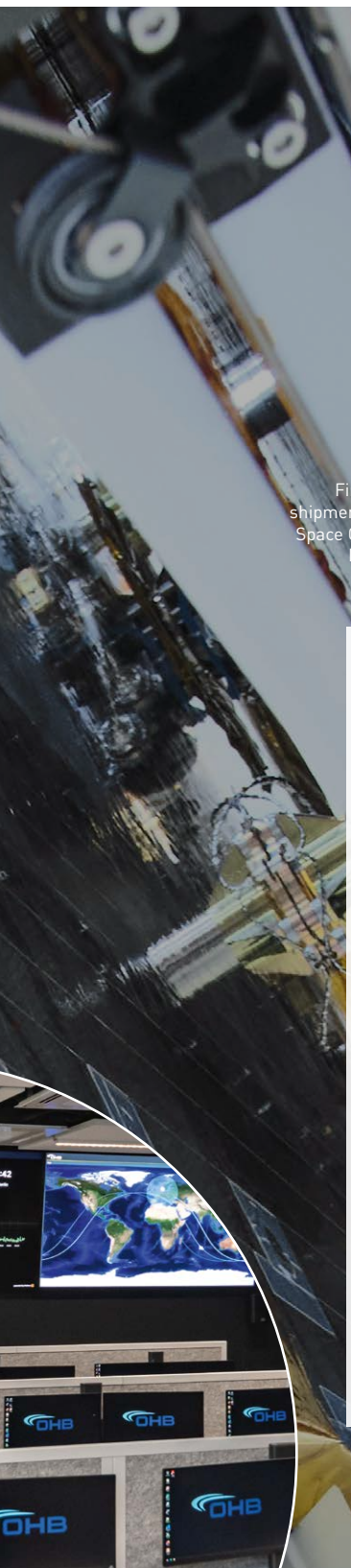


Final work before shipment to the Guiana Space Centre (Kourou, French Guiana).



For the Heinrich Hertz mission OHB assumes overall responsibility, including the development and construction of the telecommunications satellite as well as the procurement and coordination of the launch segment. Via the DIGITAL segment, OHB is also setting up the ground segment including control software and servers at the control center in Bonn. The five antenna stations for operating the system are also being supplied by OHB. OHB Digital Connect GmbH is in charge here: Its team has been responsible for the operational management of Heinrich Hertz since launch. The contract with the German Space Agency at the German Aerospace Center for operations runs until mid-2025 and is valued at EUR 24.2 million.

The Heinrich Hertz satellite, which weighs around 3.4 tonnes and is being operated by the German Space Agency at the German Aerospace Center in Bonn on behalf of the German Federal Ministry for Economic Affairs and Climate Action and with the participation of the German Federal Ministry of Defence, has been in service in its geostationary position at an altitude of around 36,000 kilometers since summer 2023.



# Environmental monitoring in the era of climate change



E

arth observation satellites made by OHB are already providing data on the effects of climate change. But it is not only the SPACE SYSTEMS segment that is focusing on climate change.

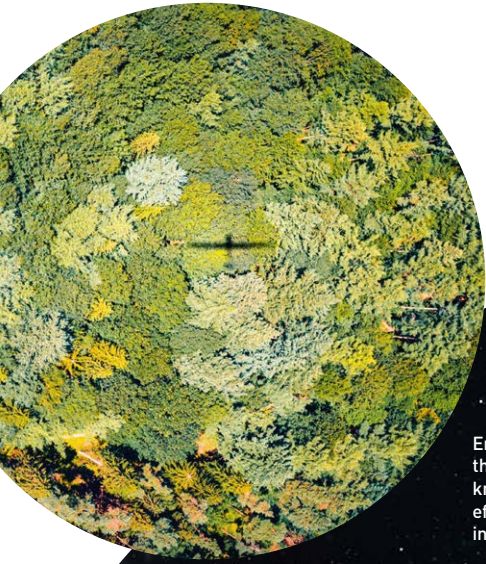
In the DIGITAL segment, the use of the data generated is systematically continuing. Specifically, the CityCLIM, Urban Green View and IIMEO projects, in which OHB is playing a key role, aim to make cities and regions more resilient to the consequences of climate change such as heat waves, storms and heavy rainfall events.

Europe's major cities are increasingly suffering from the consequences of climate change. Against this backdrop, the European Union is funding a project known as "Next Generation City Climate Services Using Advanced Weather Models and Emerging Data Sources", or CityCLIM for short. The aim of the project is to develop a cloud-based data platform that provides various weather and climate services specifically for cities based on data from weather models, Earth observation and ground measurements. Several European companies, including four from the OHB Group, are involved in executing the project: OHB System AG is acting as project coordinator and is responsible for processing and providing the space-based Earth observation data. OHB Digital Connect GmbH will be using an airborne system to validate the calculated model predictions with thermal infrared measurement data. OHB Digital Services GmbH is responsible for the development of the cloud-based data platform, in which all input data is consolidated and then made available as City Climate Services. The service demonstrations in the four model cities selected will be organized by OHB Digital Solutions GmbH.

The Urban Green View project also addresses the issue of climate change. OHB Digital Services GmbH has been commissioned by the European Space Agency ESA to coordinate the project. Together with the cities of Essen, Bochum and Dortmund, a study is looking at how satellite data from space can be used to monitor and plan urban greening and how it can be applied even more effectively in the fight against climate change in the future. To this end, the space experts are contributing their combined digital expertise. Other partners in the Urban Green View consortium are OHB Digital Connect GmbH and the University of Trier.

OHB Digital Connect GmbH has developed a new type of sensor for monitoring heat islands in urban areas for these projects. Known as RAVEN (Remote Airborne Variable Emissivity and Temperature SeNsor), the airborne sensor is capable of displaying the temperature differences occurring in densely built-up areas in high resolution. To this end, it detects the thermal radiation emitted by objects in the long-wave infrared range in three spectral bands. The data can then be used to draw conclusions about the surface properties and temperature of the objects flown over.

Coordinated by OHB Digital Connect GmbH, the IIMEO (Instantaneous Infrastructure Monitoring by Earth Observation) project is developing an on-board data processor for the global monitoring of critical infrastructure from space in near real time and demonstrating its capabilities. This key technology is used, for example, to detect storm damage on railway tracks at an early stage.



Environmental monitoring from the air or from space enables knowledge to be gained more efficiently compared to monitoring from the ground.



# Our locations

At OHB, more than 3,000 people work together every day towards one goal: To utilize space to find answers to the complex questions of our time.







**GERMANY**

Bremen  
Oberpfaffenhofen  
Augsburg  
Mainz  
Salem

**BELGIUM**

Antwerp

**GREECE**

Athens

**ITALY**

Milan  
Rome  
Benevento

**AUSTRIA**

Graz  
Vienna

**CZECH REPUBLIC**

Brno

**LUXEMBOURG**

Betzdorf

**SWEDEN**

Stockholm

**CHILE**

Viña del Mar

**FRENCH-GUIANA**

Kourou



To mark OHB's 40th anniversary in 2021, the employees assembled a photo collage featuring their profile pictures.

People are at the core of every company. At OHB, we are shaping the future of space with a strong team. The Human Resources and Organizational Development department creates the ideal framework for this team.

## **OHB: Together for a better future – Our mission, values and culture**

OHB is a strong and attractive employer on an outstanding mission: We utilize space to find answers to the complex questions of our time. We firmly believe in working on the central and fascinating issues of our time. Reflecting this, we are involved in numerous projects in the areas of climate protection, navigation, digitalization, defense and scientific research that are helping to make the world a better place.

None of these projects would be possible without the employees at OHB, without our people. They are the core and the heart of every company.

At OHB, we attach great importance to creating the right framework so that each and every employee is able and motivated to give their best. Our basic values – collaboration, courage, responsibility, solution-orientation, versatility and trust – underlie the way we work. We are alive and multifarious. We nurture an atmosphere in which ideas flow, creative solutions can emerge and everyone can assume responsibility. We also understand the importance of further development and personal growth. By taking specific employer branding measures, we also seek to additionally strengthen these values and characteristics, position our company both internally and externally in our relations with the relevant target groups and pursue our growth path. It is up to each individual to assume personal responsibility, become involved and contribute to shaping the OHB world and the future.



**Ramona Stockinger**  
Human Resources Director – Human Resources  
and Organizational Development

# Our team

Many opportunities  
to get started in the OHB cosmos

SPACE SYSTEMS



## **Magda Escorsa**

Galileo Satellite Operations Engineer, OHB System AG

“As Satellite Operations Engineers for the Galileo constellation, we ensure that all orbiting satellites are doing their job. We support the maintenance of the constellation and analyze and rectify any potential faults. As someone who has recently graduated, I particularly require trust in order to do a good job. At OHB, I have the opportunity to learn a great deal and develop my career and I particularly enjoy and appreciate the atmosphere in my department in the Navigation unit. Another bonus is how flexibly I can work at OHB – especially the opportunity to work from Spain, my home country, which is a real benefit for me.”



## **Amadeusz Włodarczyk-Zimny**

Hera Configuration Manager, OHB System AG

“My tasks at OHB vary depending on the project phase. At the beginning, I am actively involved in the tool landscape and the structure for storing the configuration documentation. As the project progresses, I coordinate and implement technical change processes. Finally, in the AIT phase, I track the integration status of the individual satellite units and assemblies. This varied range of tasks and close cooperation with my colleagues from the interface areas are particularly important to me. Teamwork not only ensures successful project implementation but also offers plenty of scope for personal development. What I particularly appreciate is the trust placed in me by the projects and the department, as well as the opportunity for proving myself in new areas of responsibility. For me, working at OHB is particularly characterized by the international outlook, which creates a varied and diverse working environment. I also welcome the modern corporate culture and, resulting from this, the flexible working conditions. Last but not least, of course, I feel inspired by the scientific missions and technically challenging space technology projects.”

# AEROSPACE

## Ivonne Mathé

Information Security Officer, MT Management Service GmbH

“This is the second time I have worked for MT Management Service GmbH, the service provider for MT Aerospace AG in Augsburg. In my first job, I was responsible for the project management office within IT. During this period, I was certified as an Information Security Officer. The combined effects of a temporary employment contract and the economic impact of the Covid-19 pandemic interrupted the working relationship for two-years. However, I have been back since July 2023 and am working as Information Security Officer. I am thrilled to have returned to the company. I experience recognition and appreciate the flexibility, personal responsibility and excellent working relations with my colleagues. In my role as an Information Security Officer, I am currently working on the implementation of an information security management system (ISMS) and certification under the international standard ISO 27001. This will ensure that we adopt best practices and observe the highest standards in information security, thus remaining competitive at the same time. One of my main tasks is to raise employee awareness in the area of information security.”



## Theresa Böhnet

Proposal Manager on the Future Programs team, OHB Digital Connect GmbH

“In the Future Programs team, we look for new studies, programs and projects to which OHB Digital Connect GmbH can potentially make a contribution. As a Proposal Manager, I analyze all the requirements and identify potential employees and external partners who can work on the proposal as well as the ensuing project. Together we develop a basic framework and a proposal for the project and try to assess its feasibility. The primary task is to initiate, coordinate and monitor the progress of the work on preparing the proposal. I rarely work with the same team, and it's particularly exciting when you engage with international partners. When everyone is given an opportunity to contribute their ideas and skills, great results and sometimes even surprising solutions emerge. Given short deadlines and new challenges, some things have to be done quite quickly and call for a great deal of flexibility. This is sometimes quite stressful, and you could also take this stress out on the process. Instead, I have always had positive experiences as everyone pulls together. If things get tight, someone who can help is never far away.”

# DIGITAL

## Calendar of events

**Would you like to visit us?**

Further information:



[www.ohb.de/en/news/events](http://www.ohb.de/en/news/events)

## Career

**Want to have been with us when we find answers  
to the complex questions of our time?**

Become a part of OHB:



[www.ohb.de/en/career](http://www.ohb.de/en/career)

## Social Media



OHB SE



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ohb\_se



## Legal

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OHB SE

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