Dear Ladies and Gentlemen,

since our founding in the year 1988, Implantcast GmbH can look back on many successful years.

Constant changes both within the company and the medical sector have smoothed our path to date. In the meantime Implantcast has become one of the most important endoprosthesis manufacturers in Germany. Implantcast’s success is based on its qualified and motivated employees, excellent partners in hospitals, diligence, inquisitiveness and perhaps also a certain measure of obsession.

In the following pages, you will read much concerning products, technology, machines and material. However, these are all dependent on people: employees, development partners, distributors and users. Together, we strive daily to ensure the health and mobility of patients.

Jens Saß
CEO and shareholder
Implantcast GmbH
The company building in Buxtehude, occupied in the year 1999, provides workplaces for more than 480 employees and accommodates both the administration as well as the production areas.
implantcast GmbH, the company formed in 1988, is one of the specialists in its sector with regard to development, construction and production of joint replacements.

Its core competence lies in the manufacture of endoprostheses as functional joint replacements, specialist implants and customized products.

Constant investments in the location, highest quality „made in Germany“, qualified employees and its specialized services are the fundamental pillars of company success.

Due to co-operation with leading European hospitals amongst others the successful MUTARS® system has been constantly improved. It is the most frequently used tumor system in Europe.
The product portfolio of implantcast comprises the fields of primary, revision, tumor and special endoprosthetics.
First class **quality** products, the **spirit of innovation**, large capacities and a high depth of manufacturing together with a constant willingness for **further development** are the characteristics which distinguish our products. Currently, more than 480 employees work at our location in Buxtehude. As a result of the close co-operation between national and international university hospitals with implantcast, new implant systems are constantly being developed. More than 90 products have been developed and established in the market since 2009. Implantcast is market leader in the fields of revision, tumor and special endoprosthetics.

**Our current product range comprises the following product groups:**

- hip endoprostheses
- knee endoprostheses
- shoulder endoprostheses
- elbow endoprostheses
- endoprostheses for small joints
- tumor endoprostheses (MUTARS®)
- revision endoprostheses
- special products
- navigation / instruments
- additional products
Take a walk with us...

The implantcast team!
Together for the benefit of the patients.
The development and construction of implant systems is one of the core tasks. The requirements for new and improved products are specified in intensive co-operation between our engineers, users and biomechanics. We employ most modern resources to transfer the innovative ideas into marketable products.

In addition to computer-assisted development and calculation of implants and instruments, the mechanical testing of newly developed components in simulators forms a part of our activities. The simulation of stresses and strains as close to reality as possible leads to insights which are directly incorporated into the development process.

Although today’s endoprosthetic systems are configured modular and cover a wide range of sizes, there is a continuing demand for individually planned implants. This particularly applies to the fields of revision or tumor prosthetics or cases where special anatomic circumstances preclude the use of standardized implants.

For such cases, implantcast offers a service of digital planning of implants designed optimally for the intended purpose in co-operation with doctors to produce these implants within a short period of time.

Many of these customized products inspire the development of new standard implants. The desire to improve the good and research the new unites us in the field of R & D.
All manufacturing steps in our production are performed according to the most current national and international standards.
Manufacturing is the synonym for willingness to perform, flexibility, high quality and economy.

Precision casting was and still is one of our core competences. Highly qualified employees are involved in the production of more than 300,000 castings per year. Our castings are manufactured by means of wax production, production of ceramic shells, dewaxing, and pouring into the two casting furnaces and subsequently they are subjected to vacuum heat treatment.

Further employees are responsible for manual processing and finishing of endoprostheses and their associated instruments. In this way, more than 120,000 knee implants, 110,000 hip prostheses and a multitude of other endoprostheses are produced each year.

Our machining department with its modern equipment is responsible for high precision CNC processing of materials made of CoCrMo, titanium alloys, stainless steel and polyethylene.

Our quality assurance ensures compliance with the high quality demands.
From powder to implant by additive manufacturing.
At implantcast the conventional manufacturing methods like precision casting and machining are complemented by additive manufacturing since 2014. This method is counted among one of the most innovative technologies of the beginning century. It allows manufacturing of extreme complex structures and geometries, which are only difficult or even not possible to manufacture with conventional manufacturing methods. Thus implants can be manufactured, which match exactly the anatomy of the patient.

Based on electronic 3D data an electron beam is applied, which builds up the structure / geometry of the implant component layer by layer from powder. The additive manufactured EPORE®-structure of the implant components is a highly porous structure on the basis of titanium alloy. It has a very high similarity to bony structure, so that bone ingrowth into the implant is promoted.
We are at your side – if you wish.
The fundamental pillars of implantcast

In a market, in which highest quality for the good of the patient is self-evident for every manufacturer, it quickly becomes clear how important special service is. Unique solutions become more and more important to ensure quality of life of the patient as long as possible. In order to fulfill this requirement we make every effort to turn every single case into a perfect solution and that immediately.

In the field of primary treatments we considerably equip hospitals, provide instructions for medical personnel and support the first surgeries to ensure a smooth process.

Experienced medical product consultants provide support for every user. It is important for us to satisfy individual wishes.

Thus, we modify instruments for example in order to comply with the individual surgeons’ preferences.

CAD supported surgical planning is provided for each case on request. The teamwork between medical product consultant, construction department and conscientious order processing allows us to be responsive to almost every issue within 24 hours.
Even for complex cases - implantcast offers patient specific solutions beyond the standard range of products.
C-Fit 3D® comprises the products of the individual endoprosthetics. In cases, which require a special prosthesi, the product range of implantcast GmbH offers a multitude of modular treatment options to be able to treat even complex revision cases in the short-term. Especially in the fields of revision and tumor endoprosthetics the demand for patient specific implants increases continuously. In such cases with large bone defects treatment with standard implants often is not possible.

implantcast is able to create 3D models of the joint from the high-resolution MRI or CT scans of the patient. By means of these models implants can be adapted and designed custom-fit to the particular anatomical situation of the individual patient.

Quickness and service play a prominent role when manufacturing customized prostheses. After close collaboration and agreement of the physician the implants and instruments are manufactured custom-made for the patient. The additive manufacturing technology is particularly favorable in this connection and it speeds up the manufacturing process tremendously.

Implantcast manufactures more than 350 patient specific implants and instruments per year with tendency to rise.
Buxtehude – worldwide
10 european branches and more than
65 international sales partners.
Due to the worldwide sales network with over 65 international sales partners implantcast products are no longer known only in Germany. Implantcast is represented by direct branches in Italy, Poland, France, Greece, UK, Turkey, Switzerland, the Benelux countries as well as in Thailand and South Africa. In recent years the international orthopaedic market has experienced fundamental restructuring, from which implantcast and its international partner companies have emerged stronger than before. The successful principle of the co-operating companies is the maintenance of their independence.

Today, endoprostheses made by implantcast are being implanted on all continents.