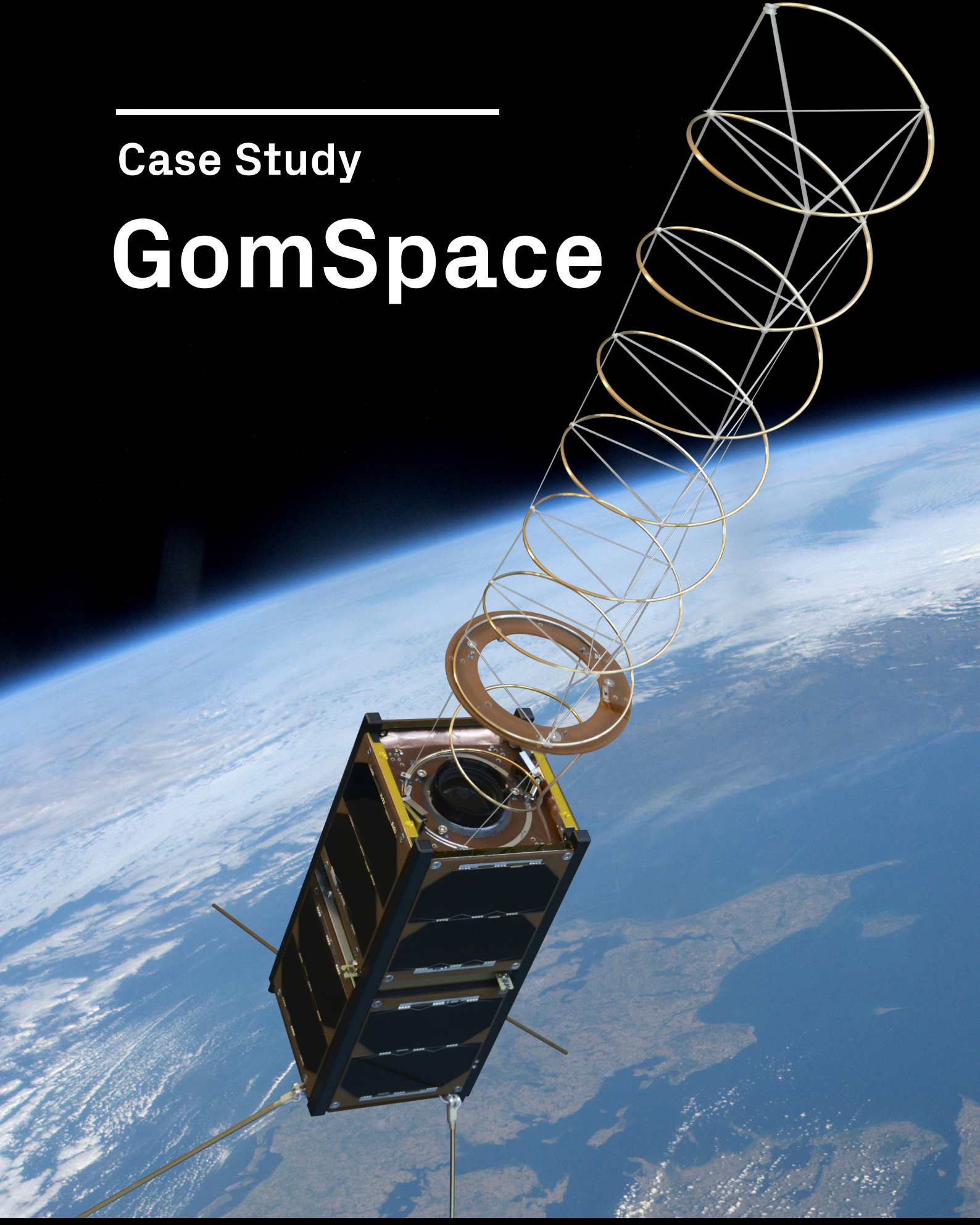
Case Study

GomSpace



ceramicspeed

Bearings Going into Space

For many things out there, the sky is the limit. But not for us.
With a mission to innovate and develop the world's best performing bearings for industrial use, we have recently closed a successful collaboration with the Danish Nano satellite manufacture GomSpace.

GomSpace is a company with a mission to be engaged in the global market for space systems and services. Specialized in introducing new products such as components and platforms. After a complex process and rigorous testing, CeramicSpeed is now a certified and approved producer of high-quality bearings for a new application - our handbuilt bearings are now qualified for use in aerospace technology.

For a bearing to perform and be certified for use in spacecrafts, there are a few crucial attributes it needs to feature. Due to the harsh conditions in space, a bearing needs to perform under demanding factors such as fluctuating temperatures, absolute vacuum and the violent G-forces during a rocket launch. For this purpose, GomSpace has tested and approved the CeramicSpeed Bearings to withstand these challenges, without compromising the bearings' life.

CeramicSpeed Bearings are matched with ceramic Si_3N_4 balls which have an extremely low thermal expansion coefficient. This makes them exceptionally well suited in environments where temperatures are expected to fluctuate between highs and lows, like they do in space.

Through the course of three years, we have tested a series of material combinations and designs that have now converged into a customized ceramic hybrid bearing solution, specially designed to answer the challenges of aerospace technology. During the three years of development, our bearings have passed several difficult tests according to the ESA (European Space Agency) requirements. To this day, the CeramicSpeed Bearings are still running above the expected bearing life, concluding a successful project and collaboration.