# NSK's History -Accumulating Capital-

## Business Development History

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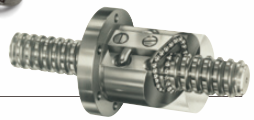
|---|---|
| From 1916: | Established as Japan's first bearings manufacturer<br>Realized producing 187 product models in two years |
| 1950s | Began exporting to the U.S. market as an industry first |
| 1960s | Established an overseas sales network and began building plants overseas |
| 1970s | Began overseas production and accelerated overseas business expansion |
| 1980s | Expanded the European and U.S. business framework, and launched full-scale business operations in Asia |
| 1990s | Established a system to manufacture products in areas of demand as well as optimal countries and strengthened the global framework |
| 2000s | Streamlined the European and U.S. businesses and strengthened the regional headquarters function<br>Achieved growth in Asia and rapidly expanded the China business |
| 2010s | Enhanced overseas business operations |
| 2020s (current) | Transforming the business structure |

## Primary Technologies and Developed Products (Accumulating Intellectual Capital)

**1916** Succeeded in mass producing bearings
Bearings reproduced based on the oldest blueprints existing at NSK

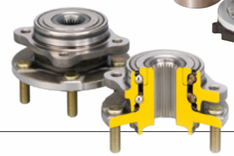
**1959** Precision ball screws for machine tools
Contributed to higher precision and productivity in parts machining



**1964** Journal bearings for the world's fastest train
Expanded business into overseas high-speed railway carriages using technologies that support the Shinkansen

**1984** The world's first Megatorque Motor direct drive motor for factory automation

**1987** 3rd generation hub unit bearings
Realized lighter weight vehicles and greater workability through unitization



**1999** Large bearings for wind turbine gearboxes
Contributed to higher output, larger, and offshore wind turbines through analysis and materials technologies

**2010** Lubricant grease derived from food-grade ingredients

**2021** Acquired the Brüel & Kjær Vibro condition monitoring system business
Ultra-high speed ball bearings for electric vehicle (EV) motors

**2023** Highly accurate bearing life prediction technology using the Micro-UT method Glossary