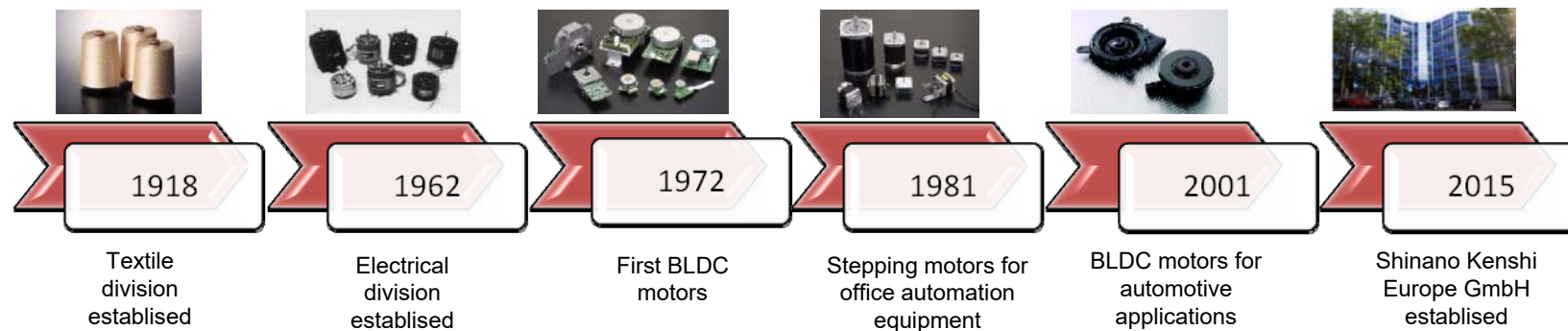


Corporate basic information and history

- family owned private company
- turnover of 447 Mio \$ (2016)
- production of 50 million motors
- 5,200 employees (850 in Japan)



HQ in Nagano Prefecture



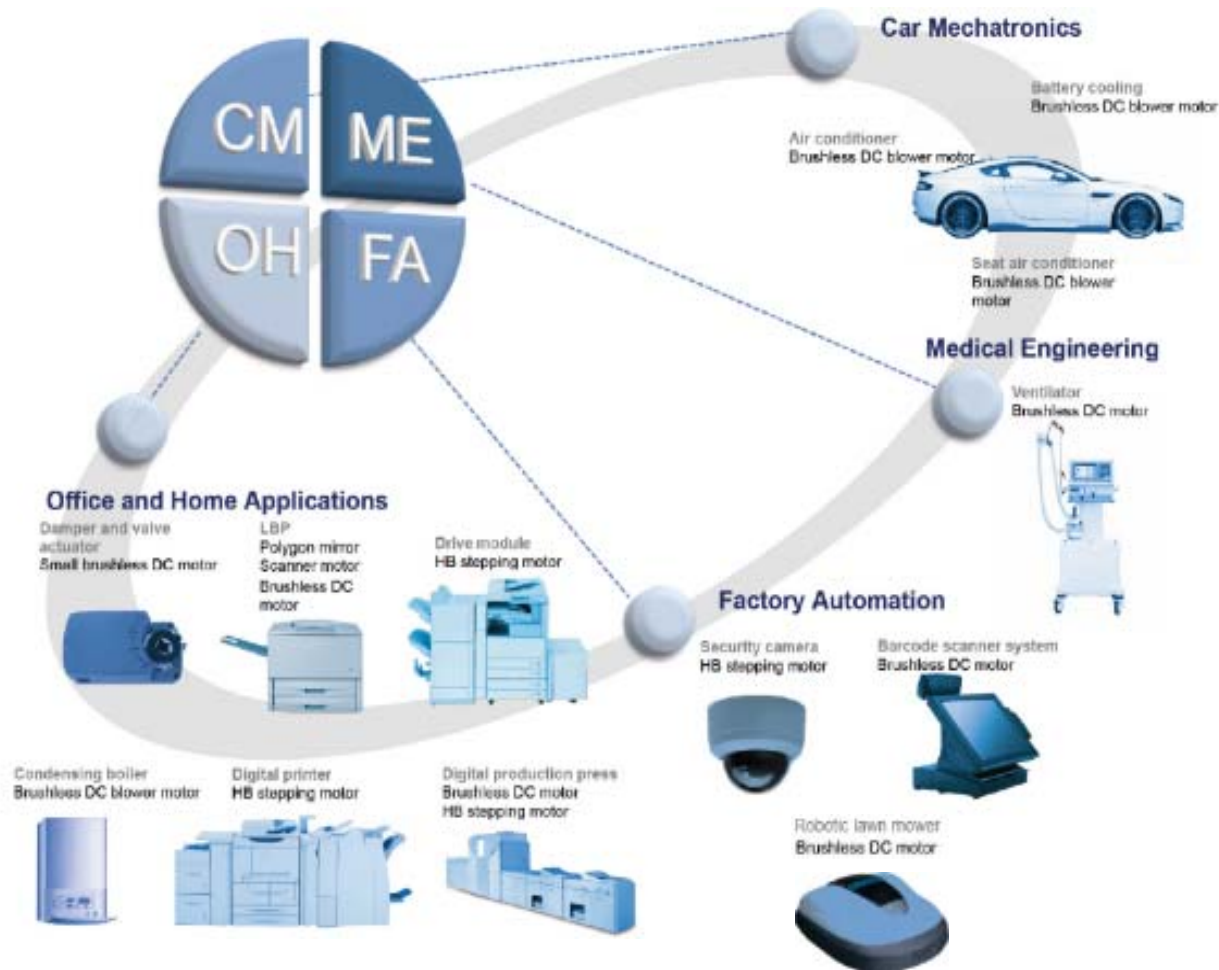
Global footprint

Global footprint of production and service areas



Our business units

Motor business



Industrial solution (IS)



Data logger with high-speed camera

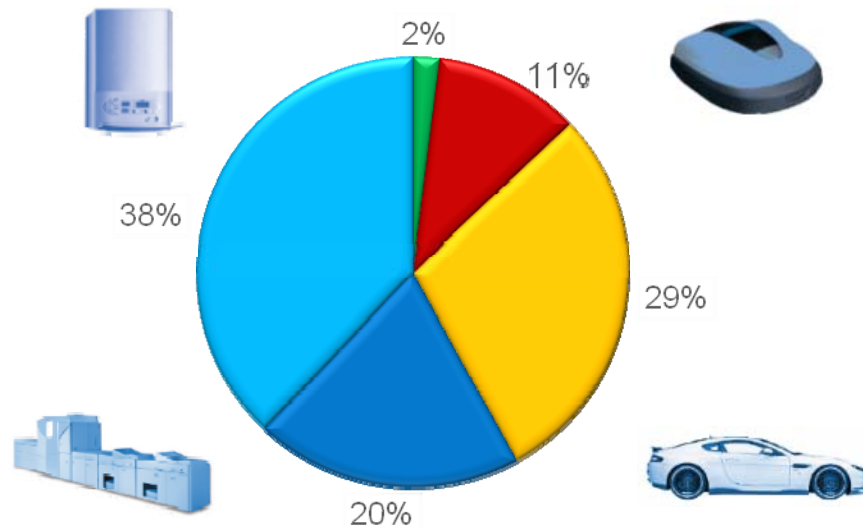
Assistive technology (AT)



Reading machine for visually challenged persons

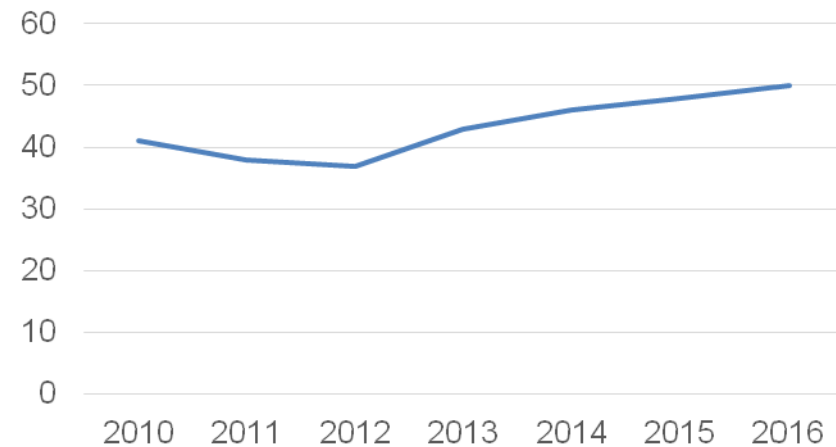
Global figures - application share

Shinano Kenshi worldwide motor products share
(based on sales volume)



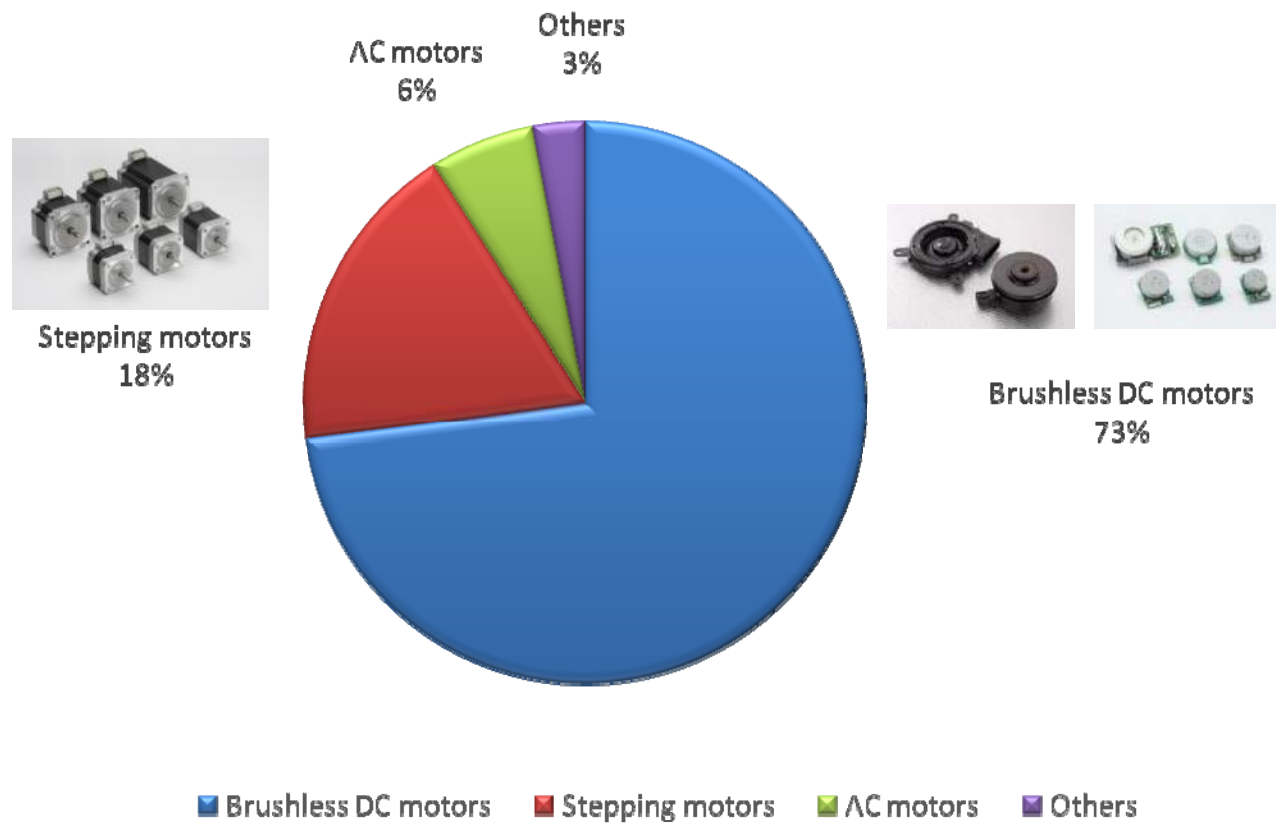
- Medical
- Factory Automation
- Automobile Applications
- Office Automation
- Home Appliance

Turnover in Billion JPY Yen



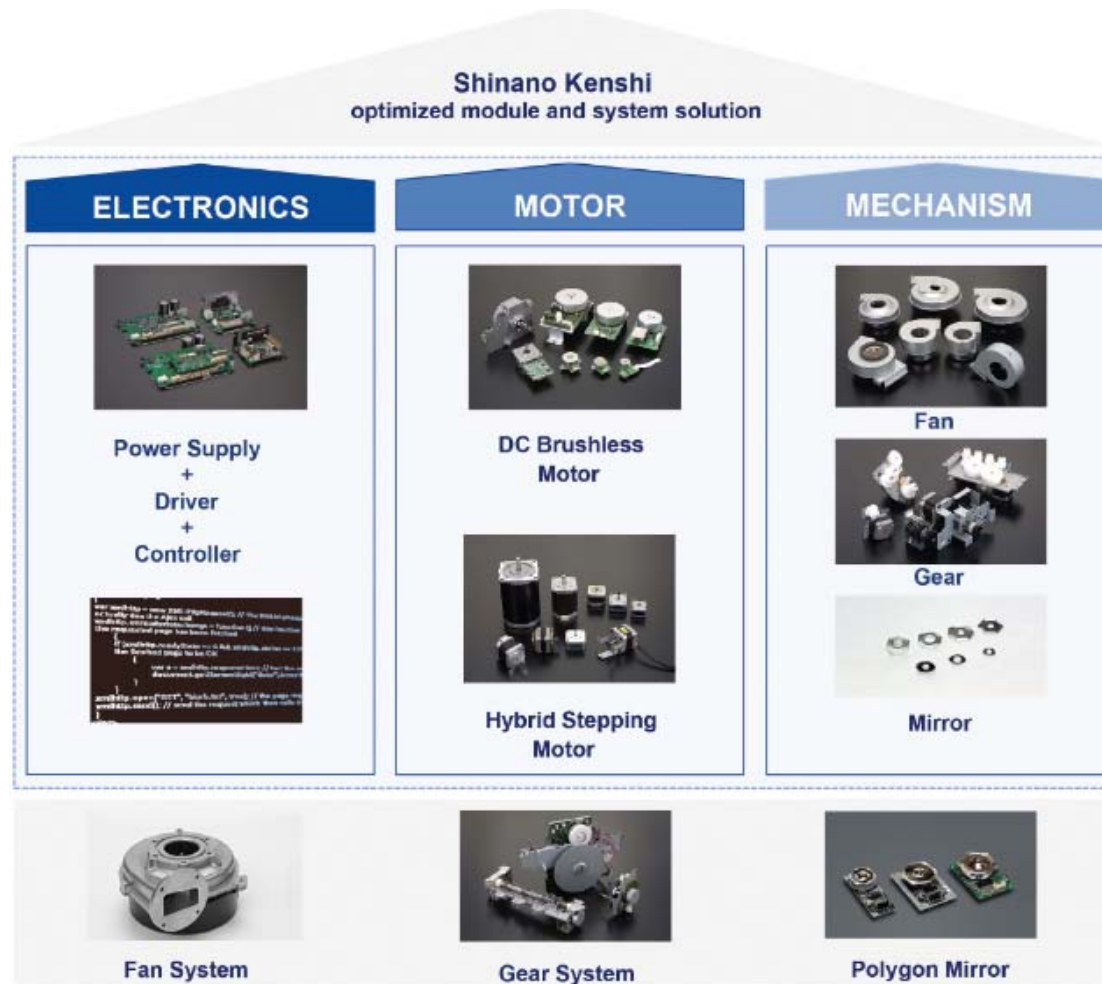
Global figures - product share

Shinano Kenshi product share of motor business



Production capability, capacity & utilization

Customized solutions



- More than 50 years experience in motor manufacturing
- World leading manufacturer
- Customized motor solutions:
 - Technical specs. (torque, speed, voltage, ...)
 - Type of Connector
 - Length of lead wire
 - position of pitches
- Develop according to customer requirements

R&D - The Path towards continuous growth



Computer engineering

- Mechanical
- Aero dynamics
- Resonance frequency
- Heat management
- Magnetic field
- Parts strength
- Bearing analysis



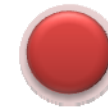
Equipment

- Solder strength test equipment
- Dynamic control re-flow soldering system
- Dielectric strength test
- Balancer machine
- PCB maker
- Torque measuring system



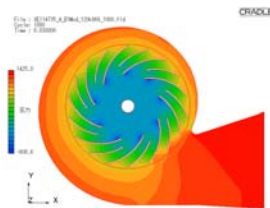
Environmental test

- Heat / Humidity chamber
- Thermal shock chamber
- Acoustic chamber
- Radio anechoic chamber
- Vibration test equipment
- Drop test equipment



Precision measurement lab

- 3D measuring system (mechanical / Optical)
- Surface roughness measuring instrument
- Cylinder viscometer measurement
- X-ray fluorescence analysis
- FTIR



Certificates and quality management



ISO 9001



ISO 14001



ISO TS16949



Motor Solutions

Stepper Motors

<http://shinanokenshi.de/products/step-motors/>

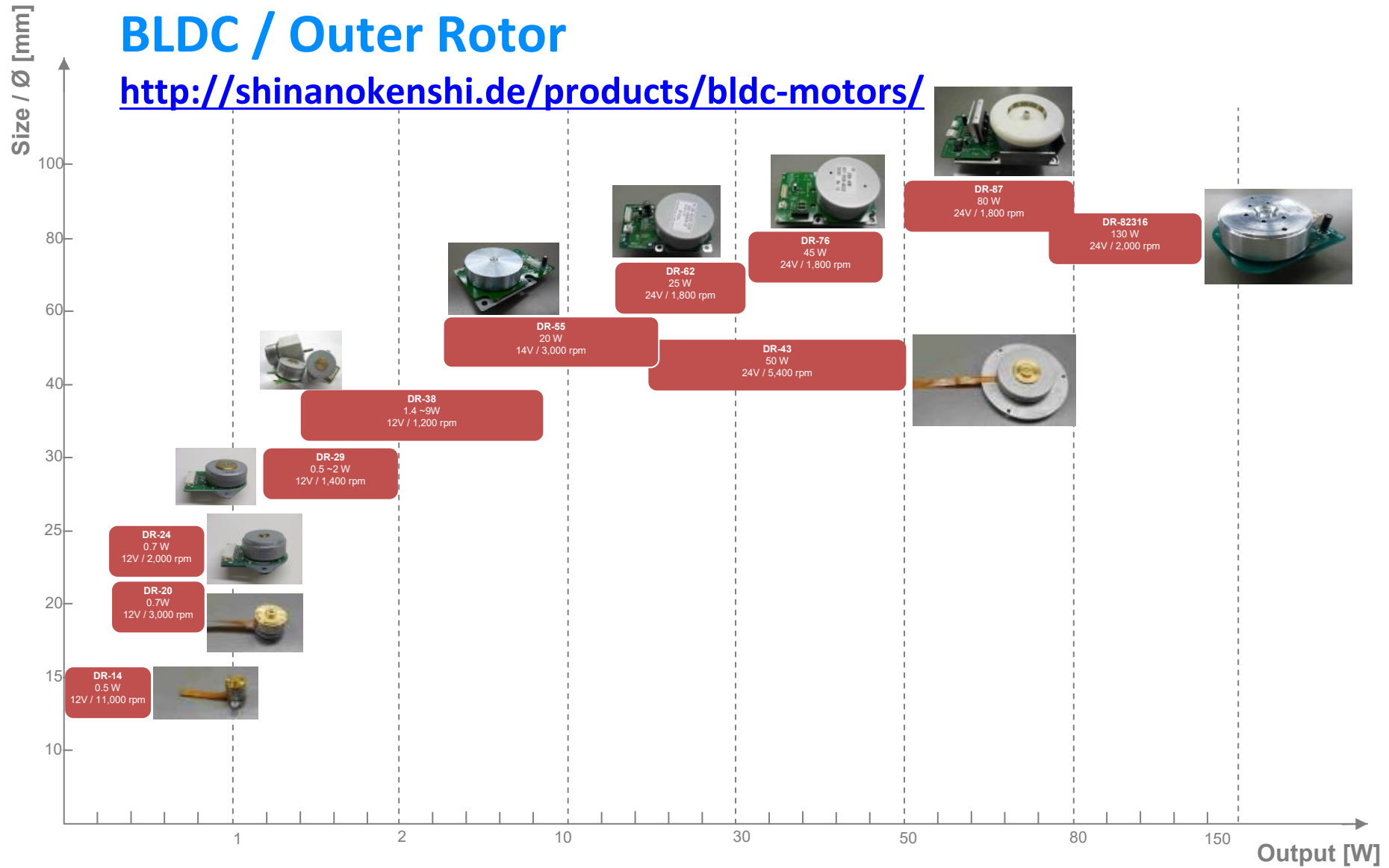
Size	Shinano Type / Model	Step Angle
NEMA 11	e.g. SST28D	1.8 deg
NEMA 14	e.g. SST35D	1.8 deg
NEMA 16	e.g. SST36C	0.9 & 1.8 deg
NEMA 17	e.g. SST45D	0.9 & 1.8 deg
NEMA 23	e.g. STA56D	0.9 & 1.8 deg
NEMA 24	e.g. SST60D	1.8 deg
NEMA 34	e.g. SST86D	1.8 deg



Motor Solutions

BLDC / Outer Rotor

<http://shinanokenshi.de/products/bldc-motors/>



Motor Solutions

BLDC / Inner Rotor <http://shinanokenshi.de/products/bldc-motors/>

