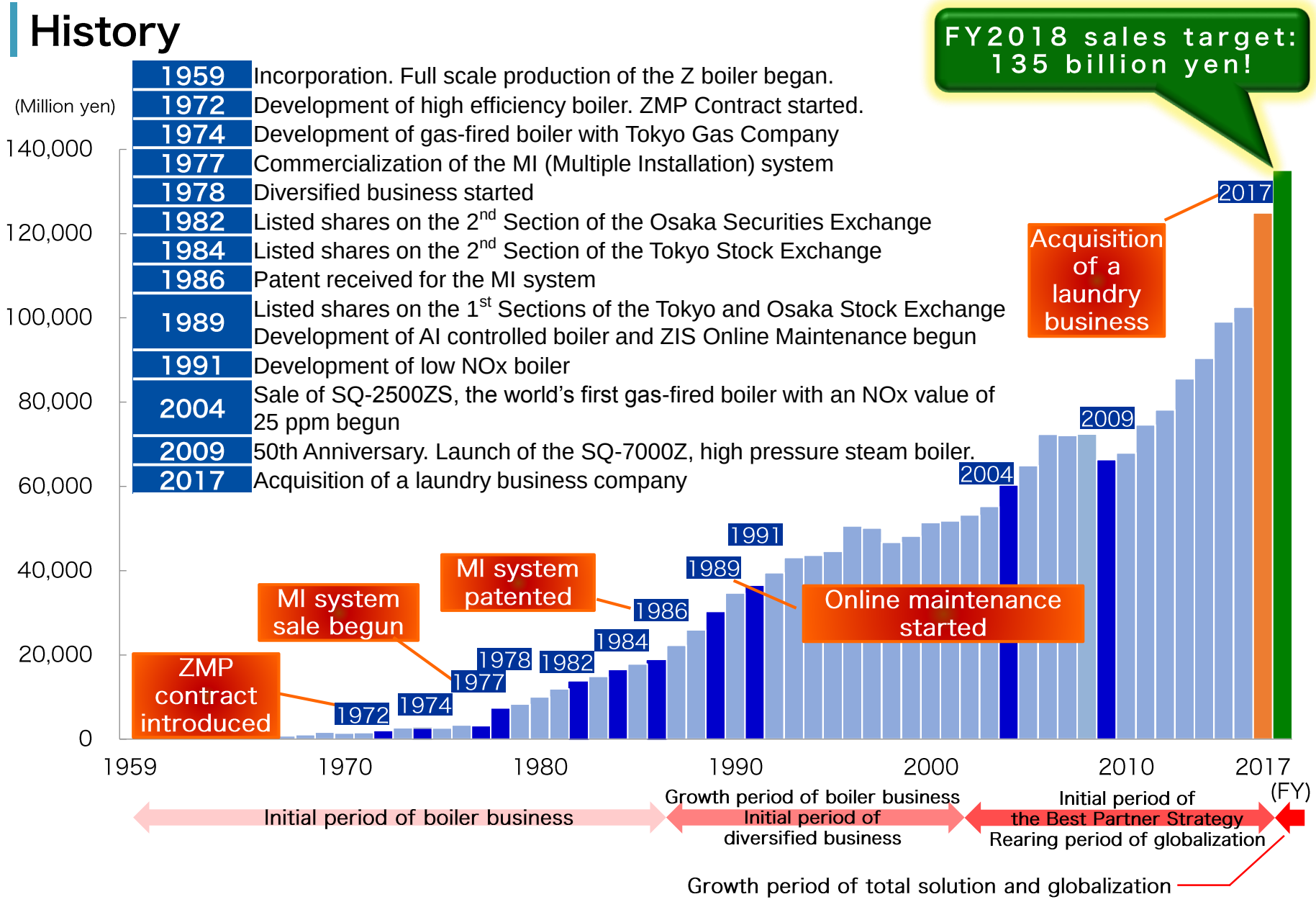
7. Reference

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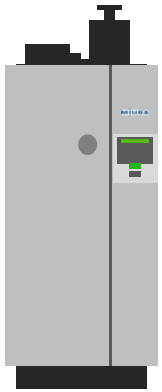
History

1959	Incorporation. Full scale production of the Z boiler began.
1972	Development of high efficiency boiler. ZMP Contract started.
1974	Development of gas-fired boiler with Tokyo Gas Company
1977	Commercialization of the MI (Multiple Installation) system
1978	Diversified business started
1982	Listed shares on the 2nd Section of the Osaka Securities Exchange
1984	Listed shares on the 2nd Section of the Tokyo Stock Exchange
1986	Patent received for the MI system
1989	Listed shares on the 1st Sections of the Tokyo and Osaka Stock Exchange Development of AI controlled boiler and ZIS Online Maintenance begun
1991	Development of low NOx boiler
2004	Sale of SQ-2500ZS, the world's first gas-fired boiler with an NOx value of 25 ppm begun
2009	50th Anniversary. Launch of the SQ-7000Z, high pressure steam boiler.
2017	Acquisition of a laundry business company

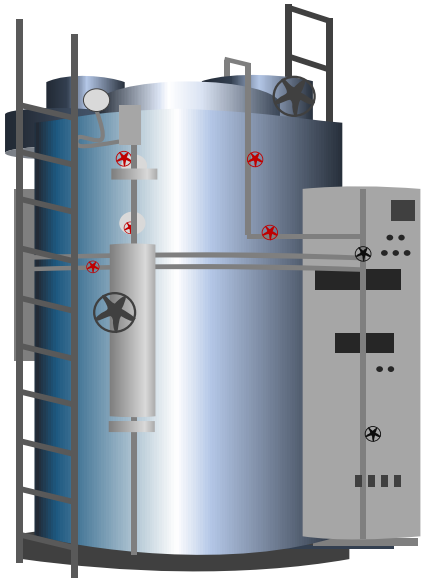


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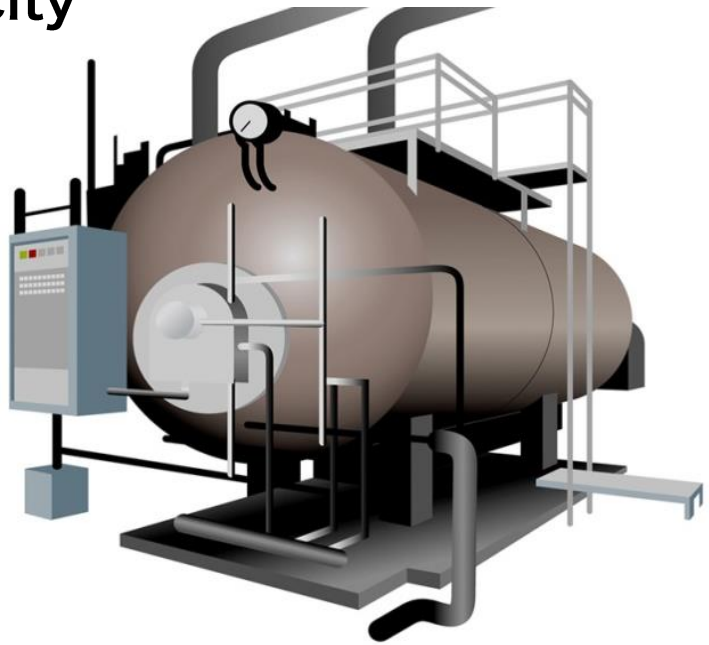
Types of boilers — Same capacity



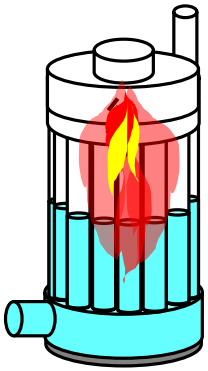
Once-through boiler

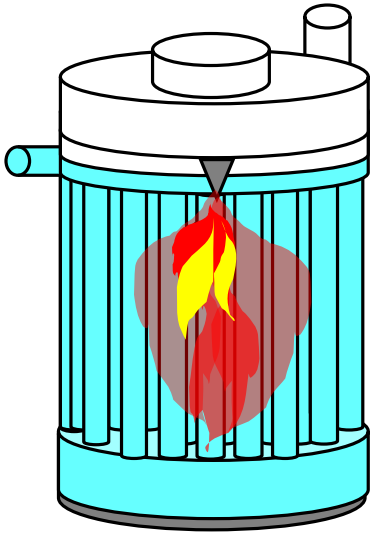


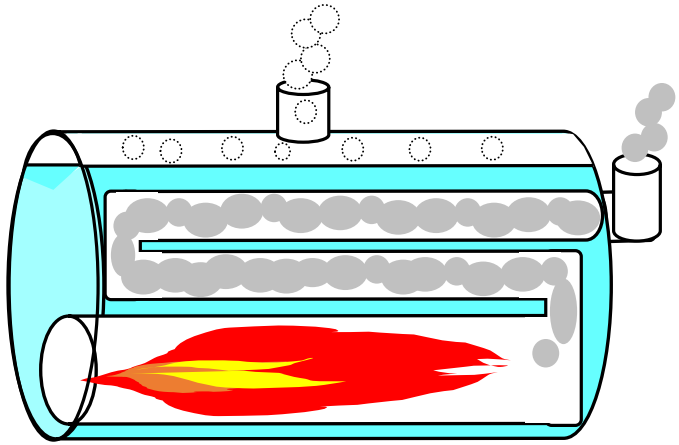
Water tube boiler



Fire tube boiler

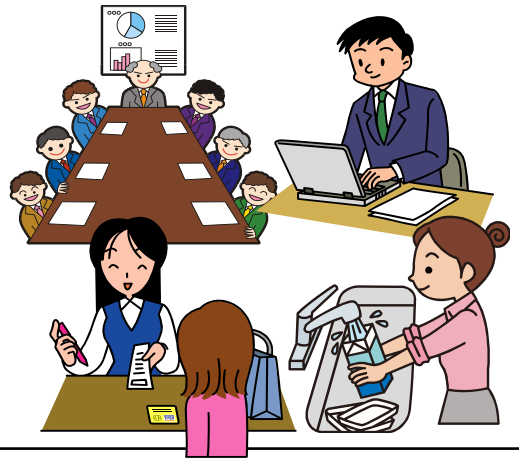
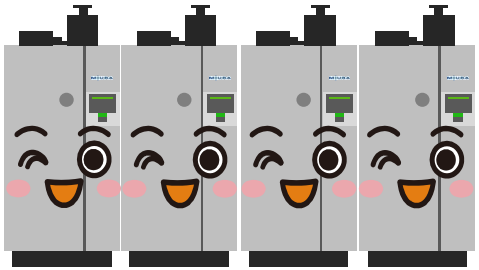
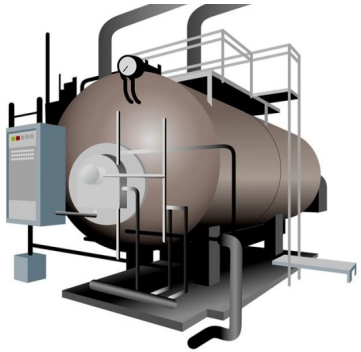
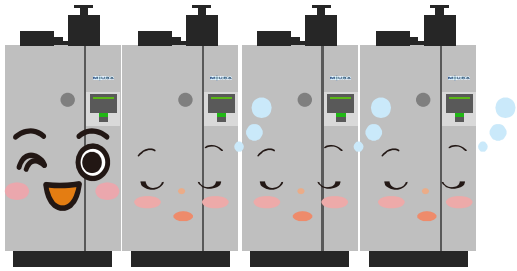
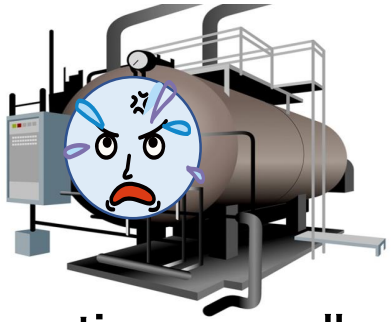






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Merit of Once-through Boiler

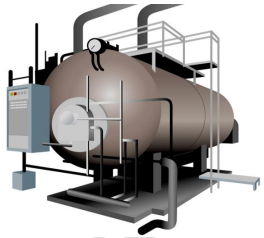
	Human activities	MI system (Multiple installation)	Large boiler
Daytime: High load		 Once-through boilers	 Fire tube boiler
Night time: Low load		 Only required number of boiler in operation ◎ Higher efficiency	 Operation regardless of load × Poor efficiency

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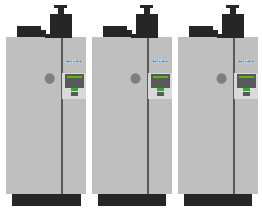
MIURA MI (Multiple Installation) System

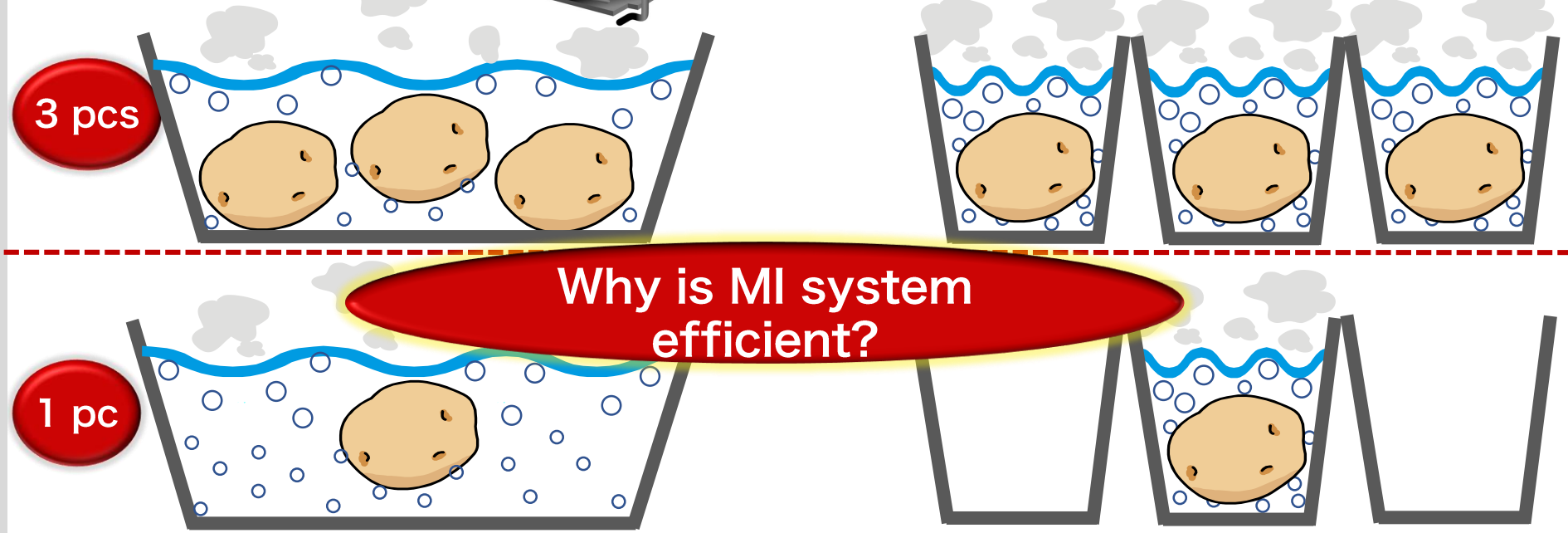
Provides steam of required amount when needed, reducing operation costs and emission of CO_2 and NOx.

One large capacity boiler



Small capacity boilers in MI system





Why is MI system efficient?

Same water content even if the number of potatoes reduced

Water content reduced when the number of potatoes reduced

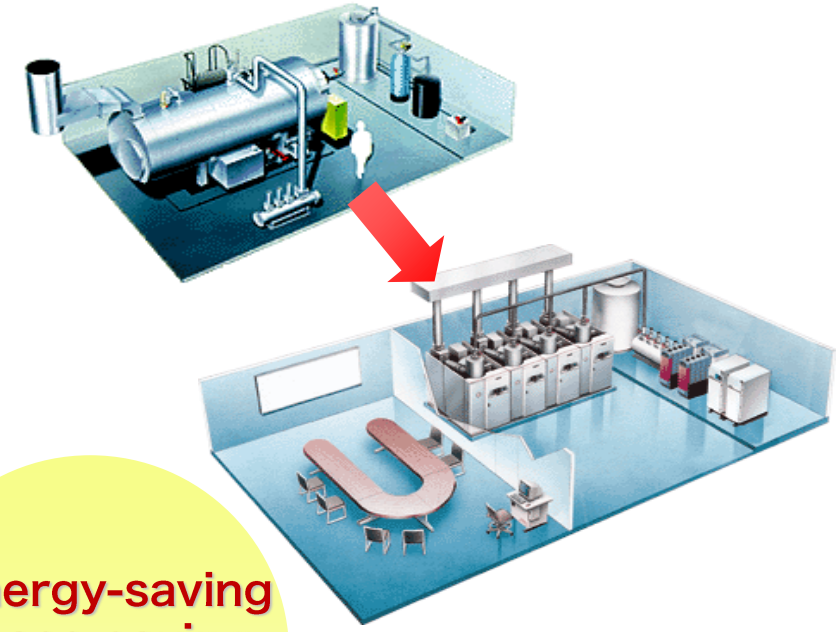
Energy Saving | Space Saving | Labor Saving | Low pollution

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In 1986 MI system patented

MI system (Multiple Installation system)

Once-through boiler design makes energy savings a reality.





- Energy-saving
- Space-saving
- Labor-saving
- Low pollution

Provide steam when needed and only when needed, low operation costs and reduction of CO_2 and NOx.

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What is ZMP Contract?

Period Update every 3 years → 5 terms (15 years)

Contents

3 time inspections per year
Free replacement

Remedy for sudden troubles
Free replacement parts



Anomaly perception

Trouble factor check in advance

→ Customers' safety & relief

→ Early recovery

Water analysis + Online maintenance

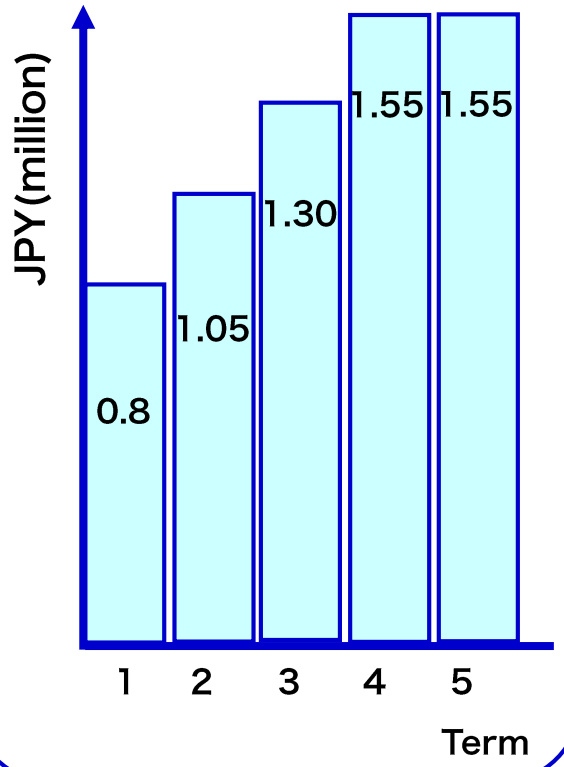




Contract amount

E.g. SQ-2000AS
(Unit price: ¥13,880,000)

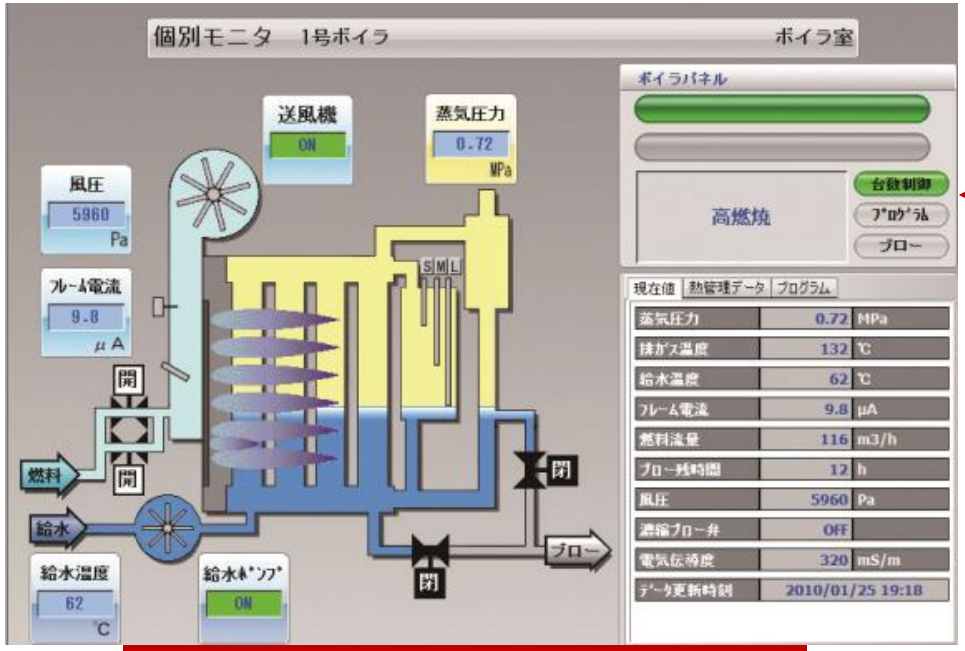
ZMP contract total: ¥6,200,000



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Online Maintenance

Maintaining high profitability with “IoT” for 29 years



Monitoring

Troubleshooting via Telephone (Data collection/analysis)

User



60,118 units under contract
*Including equipment other than boiler
(As of April 2018)

Remote monitoring



Visit

Trouble factor grasped → Preparation in advance → Early recovery

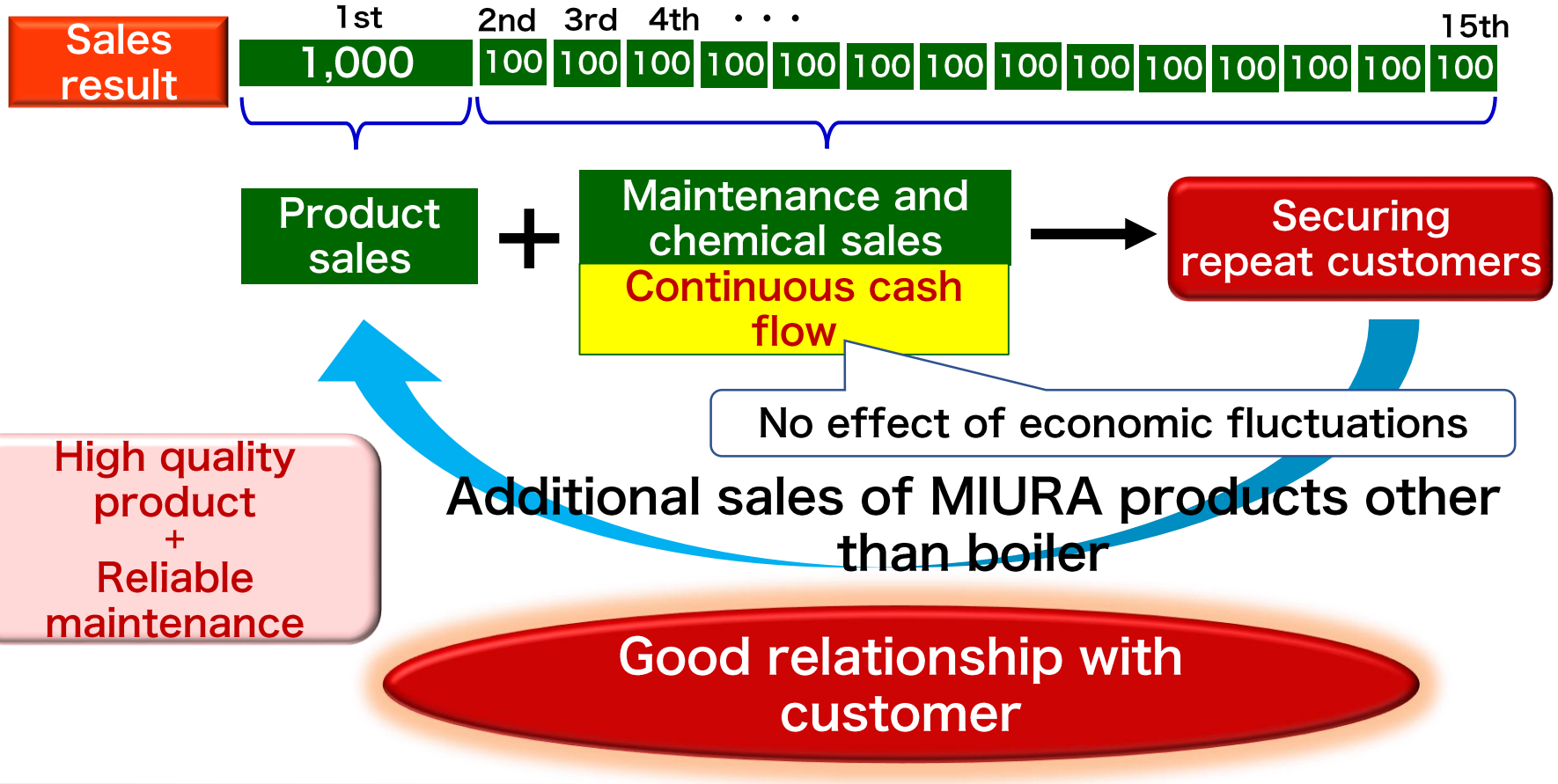
Much more effective, easier maintenance work

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Boiler Lifespan and MIURA Business Model

Not only the product sales, but maintenance & consumables sales

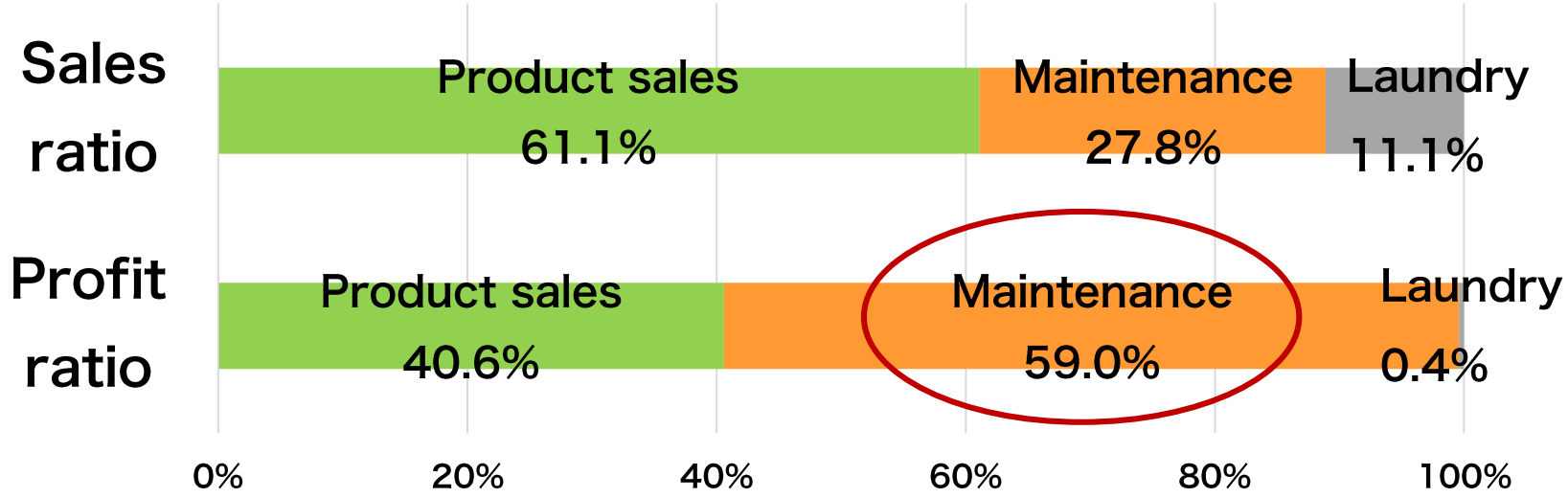
Assuming a boiler has a lifespan of 15 years,



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Maintenance Brings Profits

*The whole MIURA group as of March, 2018

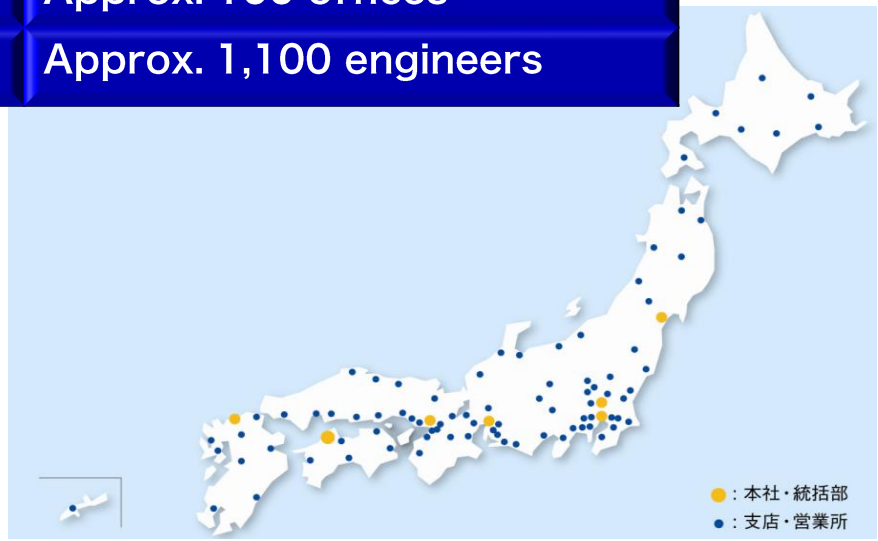


MIURA Maintenance Network

Offices	Approx. 100 offices
Service Engineers	Approx. 1,100 engineers







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Mid & Long Term Management Strategy

Domestic

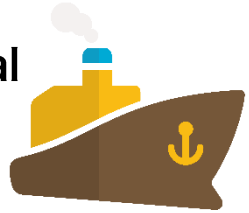
① Total solution

・Improving energy efficiency all over the factory & plant all equipped with MIURA products achieving one-stop maintenance

② BWMS

・Obtaining USCG type approval

・Taking full advantages of our technology, maintenance, and customers' trust in MIURA



Overseas

① Deployment of our Japanese business model

・Appealing advantages of MI system and suggesting energy-saving boiler system

・Globalizing MIURA boiler while increasing installation



② Coal-fired boiler replacement in China

・Introducing gas-fired boiler technology in Japan to meet legal requirements on the fuel shift from coal to gas regarding serious air pollution in China which have been tightened

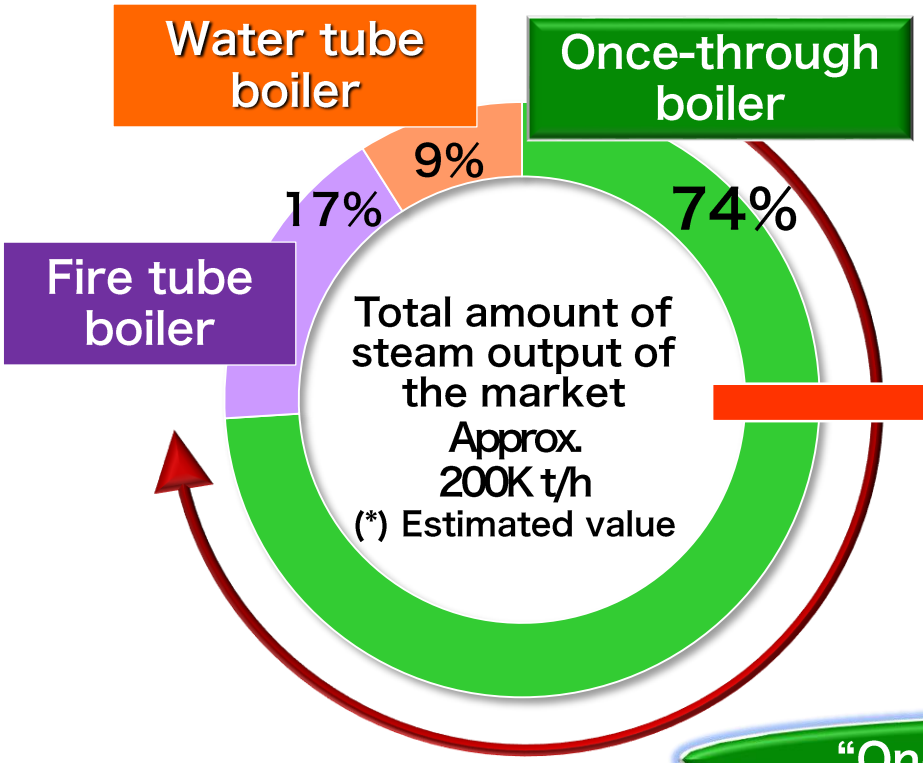
・Expanding maintenance network to provide maintenance as in Japan

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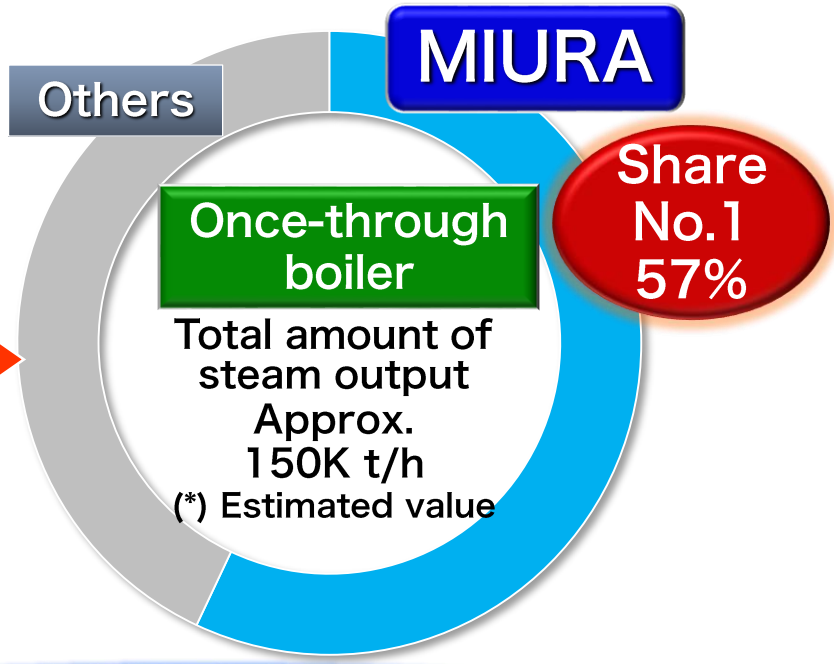
Domestic share

*Boilers for power generation excluded
(Based on an in-house investigation, September 2017)

Domestic boiler market



Domestic once-through boiler market



"Once-through-ism" movement

Competitors		
	• NIPPON THERMOENER CO., LTD • IHI PACKAGED BOILER CO.,LTD • Hirakawa Corporation	• SAMSON CO.,LTD. • Kawasaki Thermal Engineering Co., Ltd. • YOSHIMINE CO.,LTD.

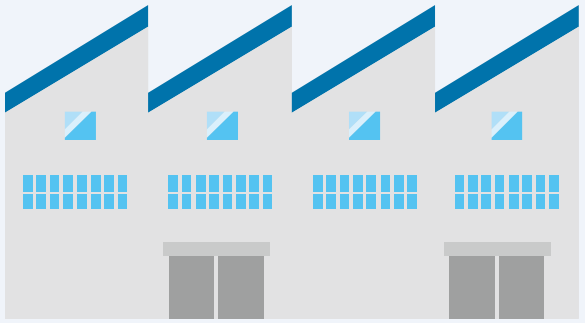
(Note) The share of once-through boilers is based on MIURA's investigation and the actual results may differ from that.

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What will we offer for the matured market in Japan?



Maximize efficiency in Boiler



Improve energy efficiency throughout the factory

Unutilized heat Recovery equipment



Steam driven air compressor



Exhaust gas boiler



Other than Boilers

Water treatment equipment



Food processing equipment



Medical equipment



Laundry equipment



Marine equipment

Marine boilers



Ballast water management system



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Ehime Prefectural Central Hotel
～Preparation for Emergencies regarding BCP (Business continuity planning)～



Fuel selectable boiler





Vacuum cooler



Steam sterilizer system



Vacuum-boiling washer



Filtration equipment

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Total solution in food factory

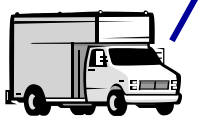




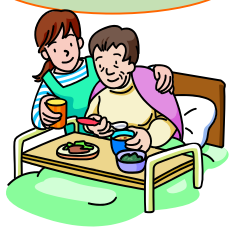


Cooling → Sterilizing → Water-cooling

Total solution for food processing equipment



Hospital



School



Convenience store



Nursing home



Food



Cooking ← Defrosting



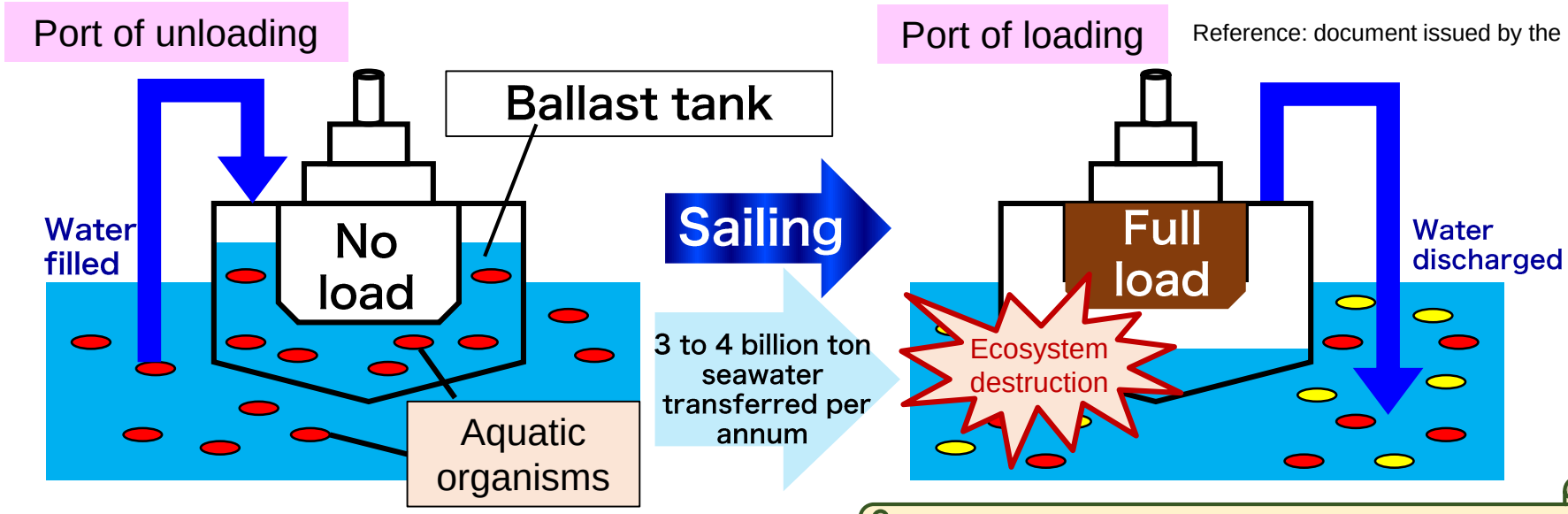




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Ballast water problem “A new market born”

“Ballast water” is the seawater taken into a ship’s tank to provide stability to the ship.



Aquatic organisms transferred from the port of unloading to that of loading

Environmental problems such as ecosystem destruction

The Ballast Water Management Convention (adopted in 2004)
→Installation of ballast water treatment equipment is obliged

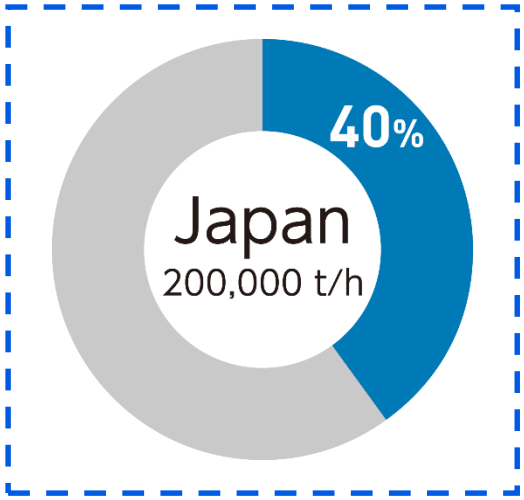
Obligatory since Sep. 2017
Newly built ships

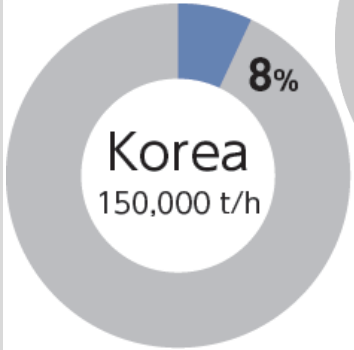
Obligatory since Sep. 2019
Existing ships

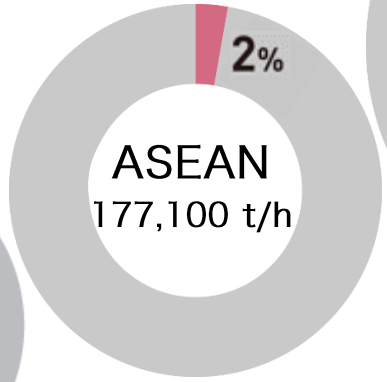
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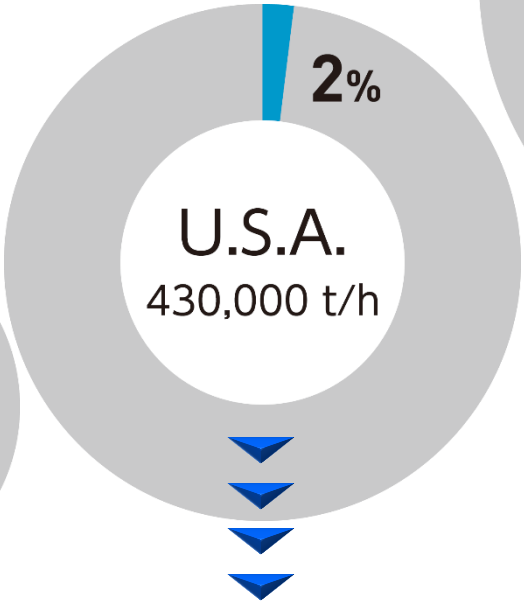
Boiler market share

*Based on total amount of steam output
(Based on an in-house investigation, March 2018)

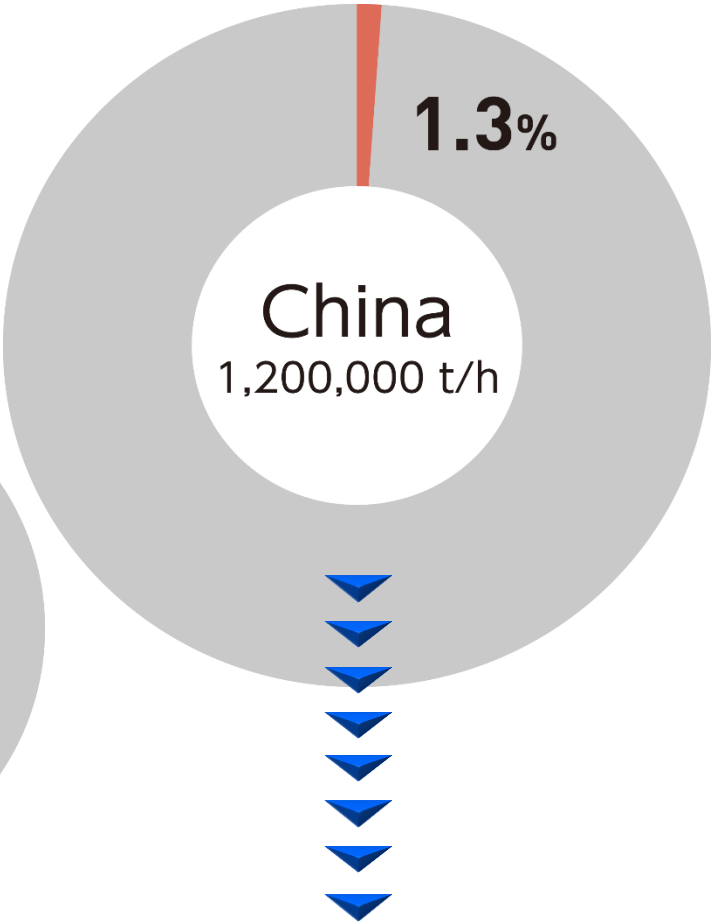








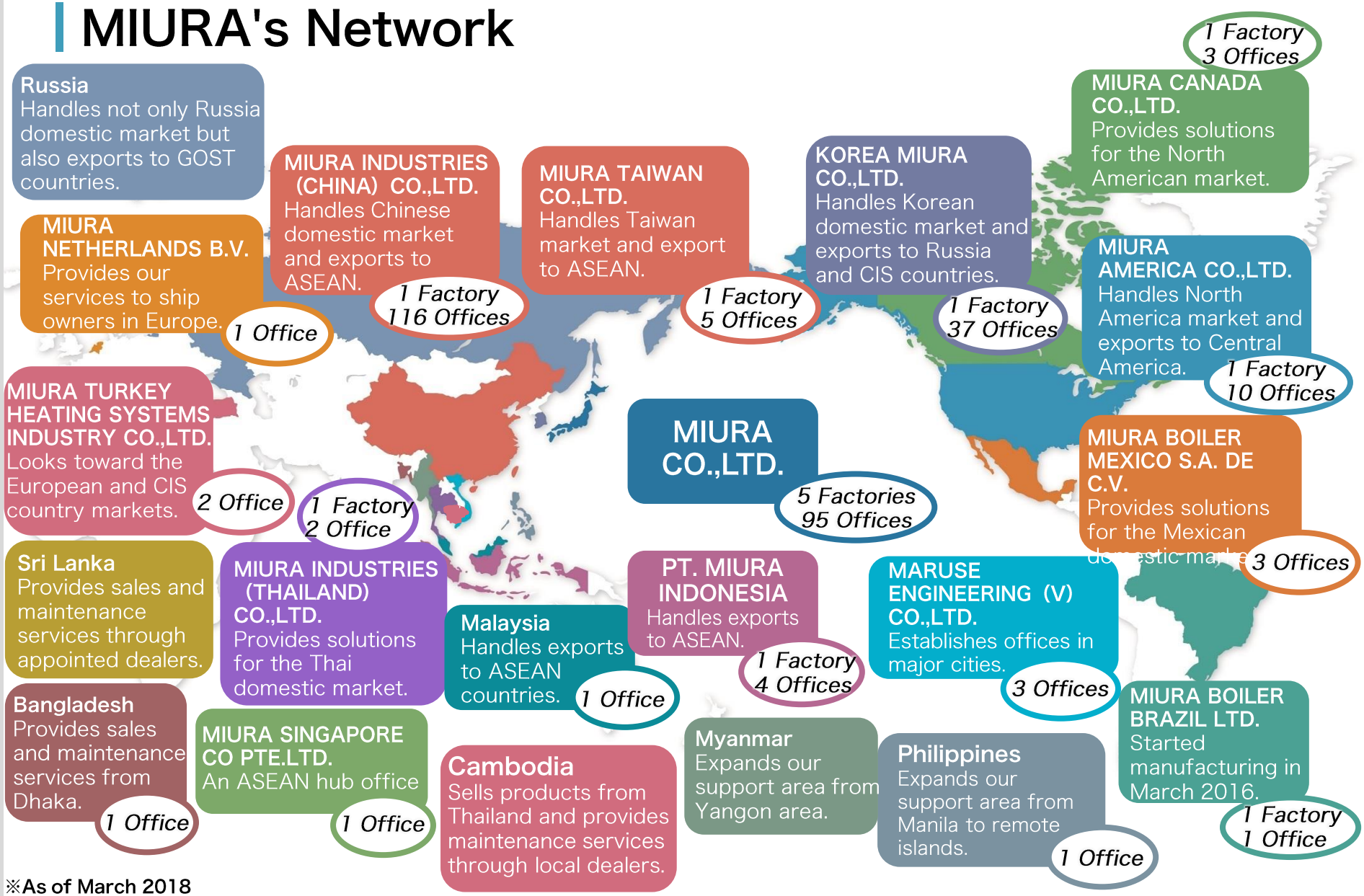
Mainly Large,
Low-efficiency boilers



80% of the market is coal-fired boilers
which is rapidly switching over to natural gas.

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MIURA's Network



※As of March 2018

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The Best Partner of
Energy, Water and Environment

MIURA

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