

# Air-Conditioning & Refrigeration Systems Business Operation

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# 1. Business Outline (1) Product Overview

\* Both net sales and percentage of domestic/overseas sales based on results in FY 2007 (Consolidated basis)

## Air Conditioning Equipment (PAC/RAC)

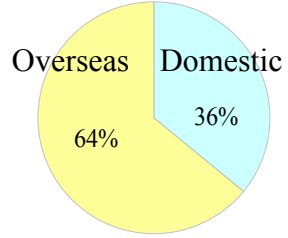
### PAC



### RAC



Percentage of Domestic/Overseas Sales

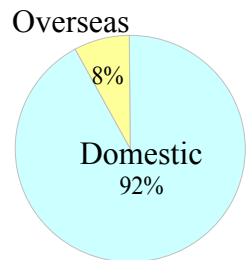


Mass-Produced Items

## Centrifugal Absorption Liquid Chillers (CALC)

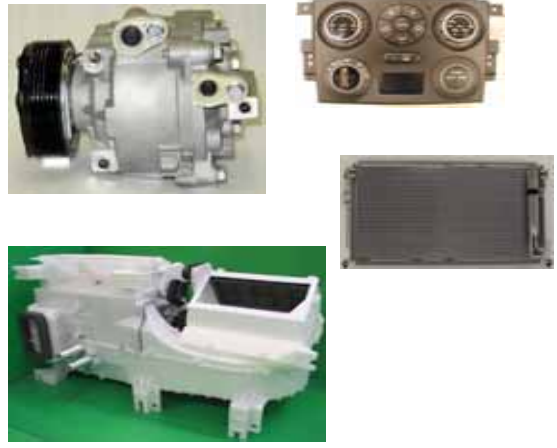


Percentage of Domestic/Overseas Sales

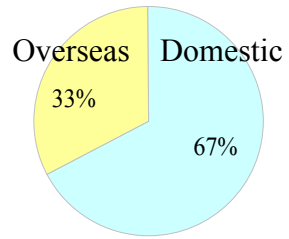


Ordered Goods

## Automotive thermal systems (CAC)



Percentage of Domestic/Overseas Sales

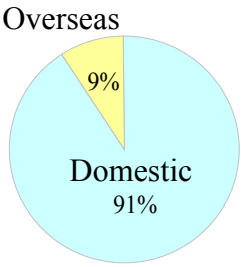


Ordered Goods

## Transport Refrigeration Units (TRU)



Percentage of Domestic/Overseas Sales

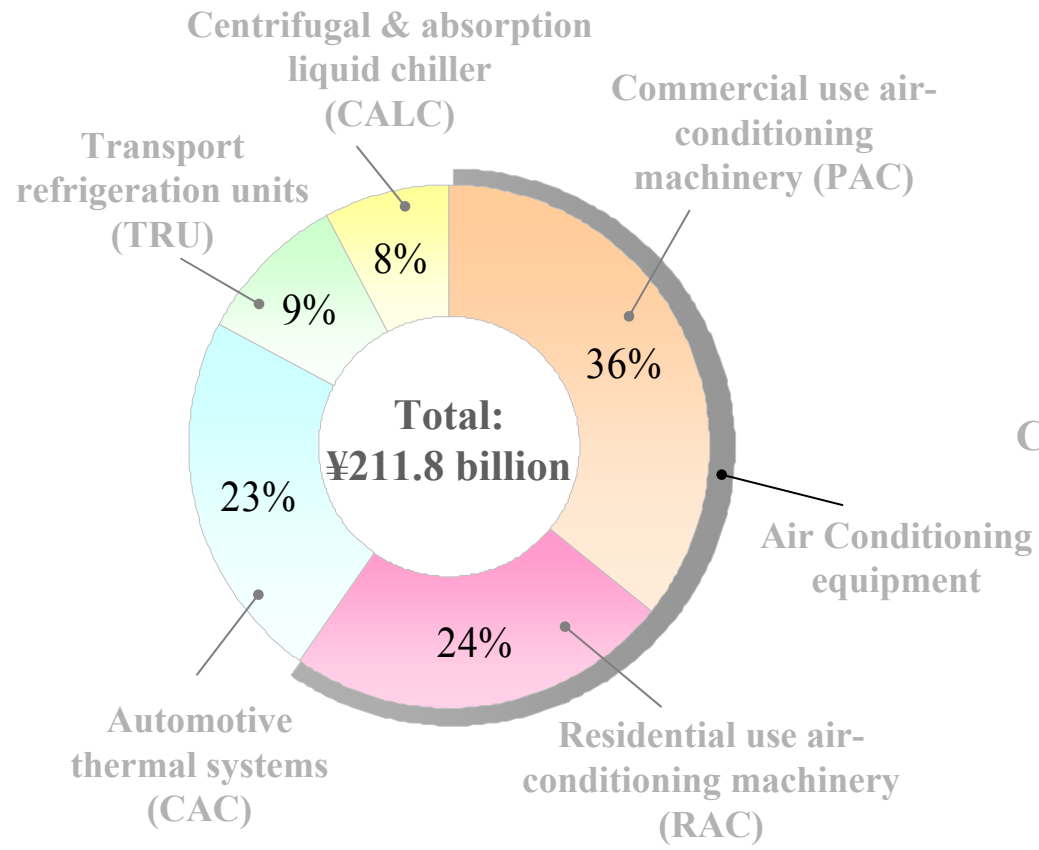


Mass-Produced Items

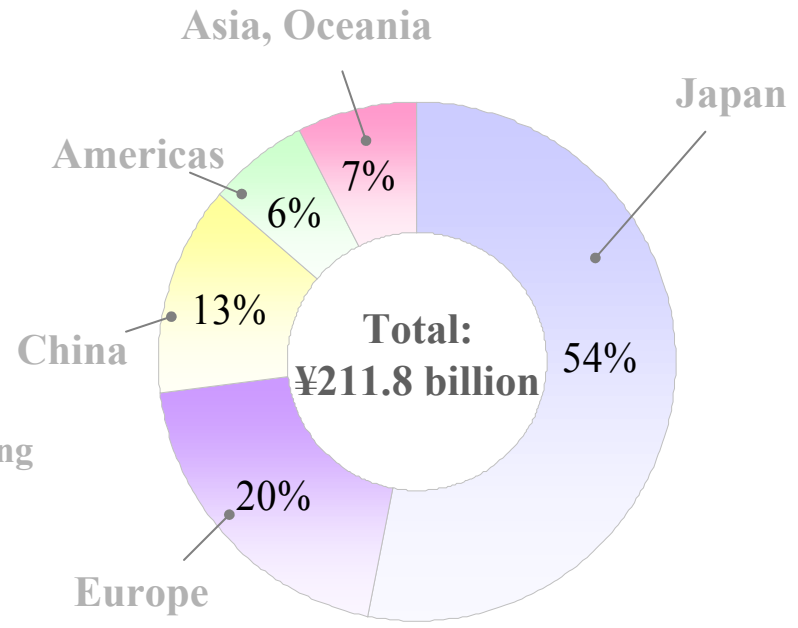
# 1. Business Outline (2) Portfolio

## FY 2007 Sales (consolidated basis) for Air Conditioning & Refrigeration Systems Headquarters

**According to product**

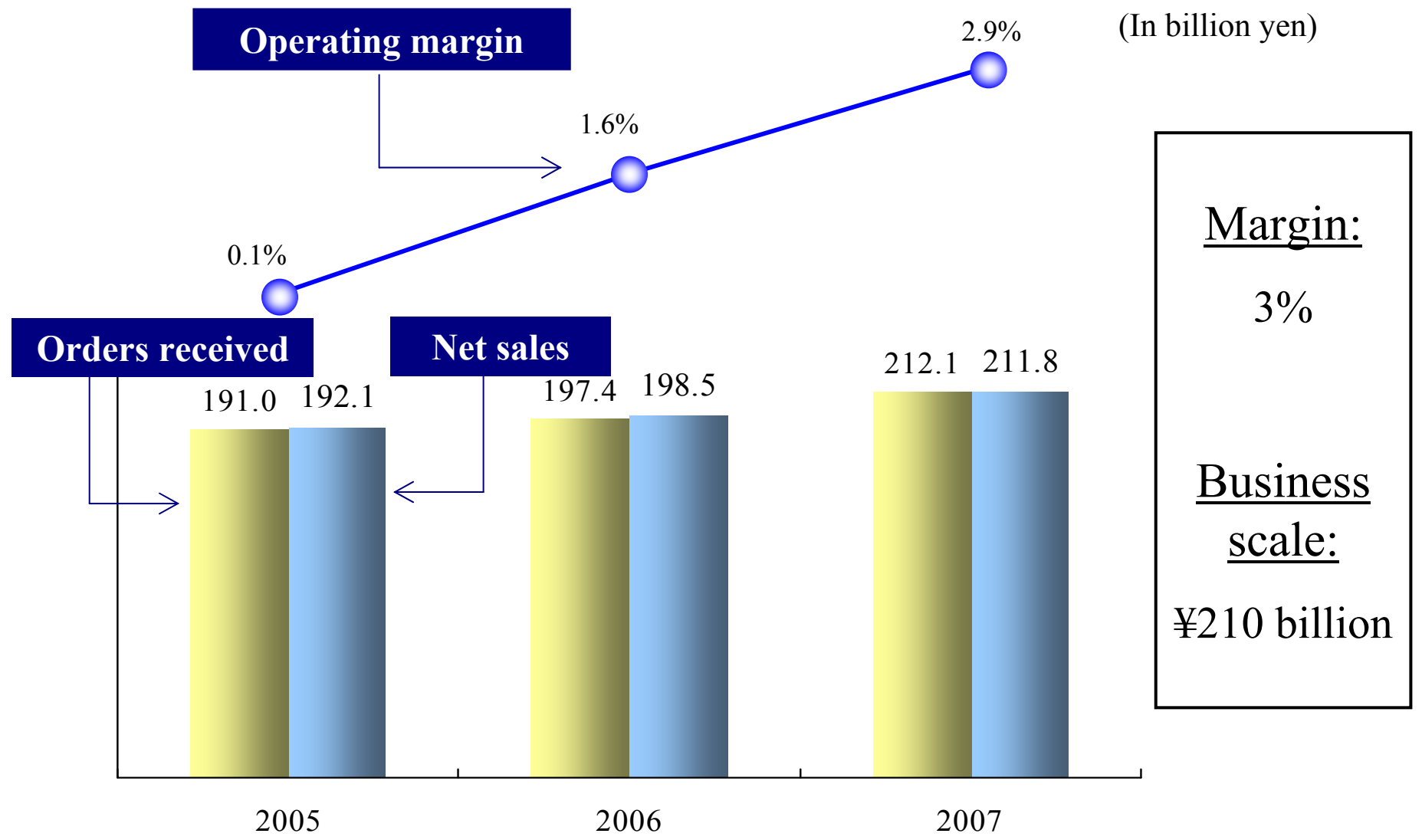


**According to region**



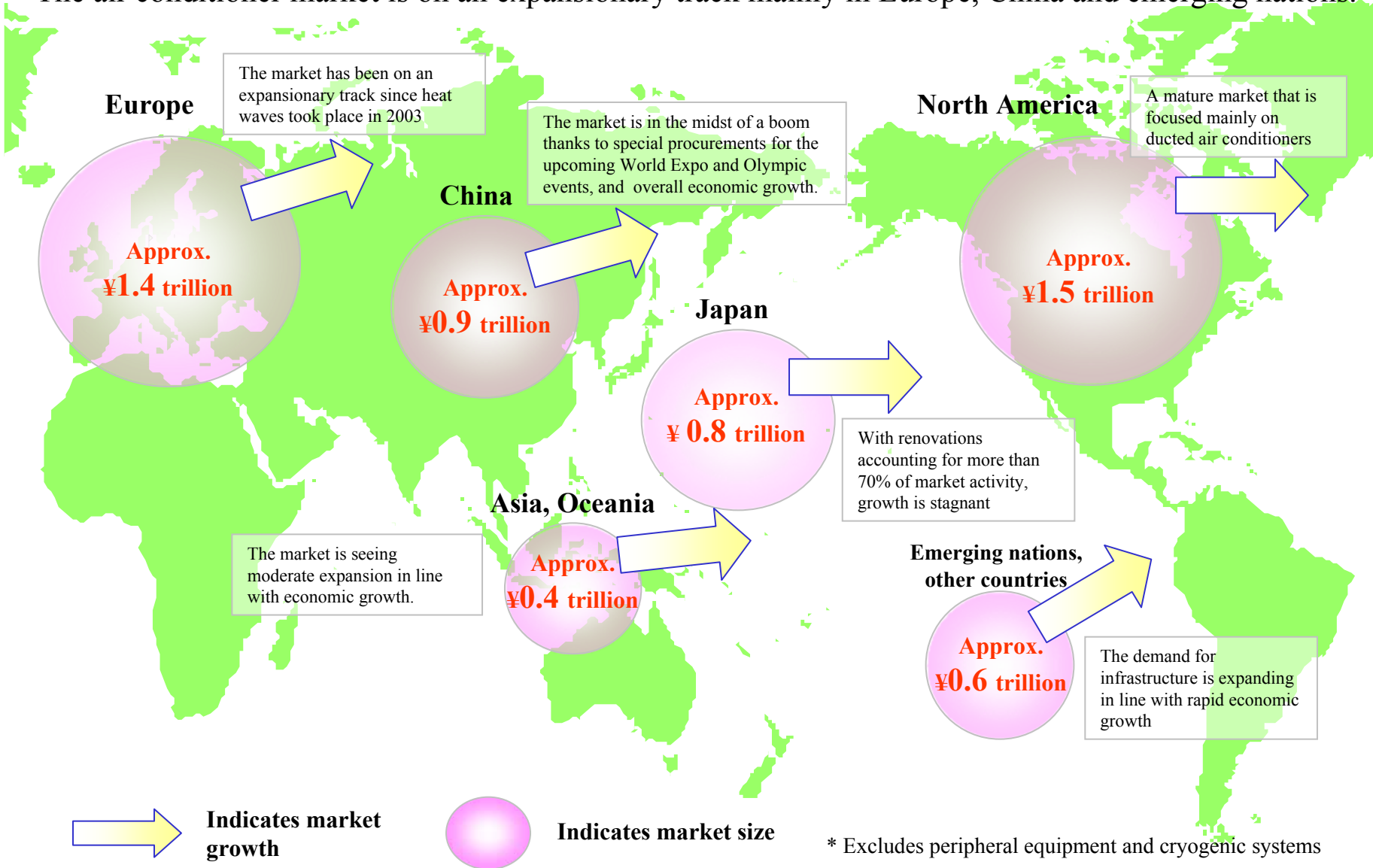
**Percentage of overseas sales: 46%**

# 1. Business Outline (3) Business Summary



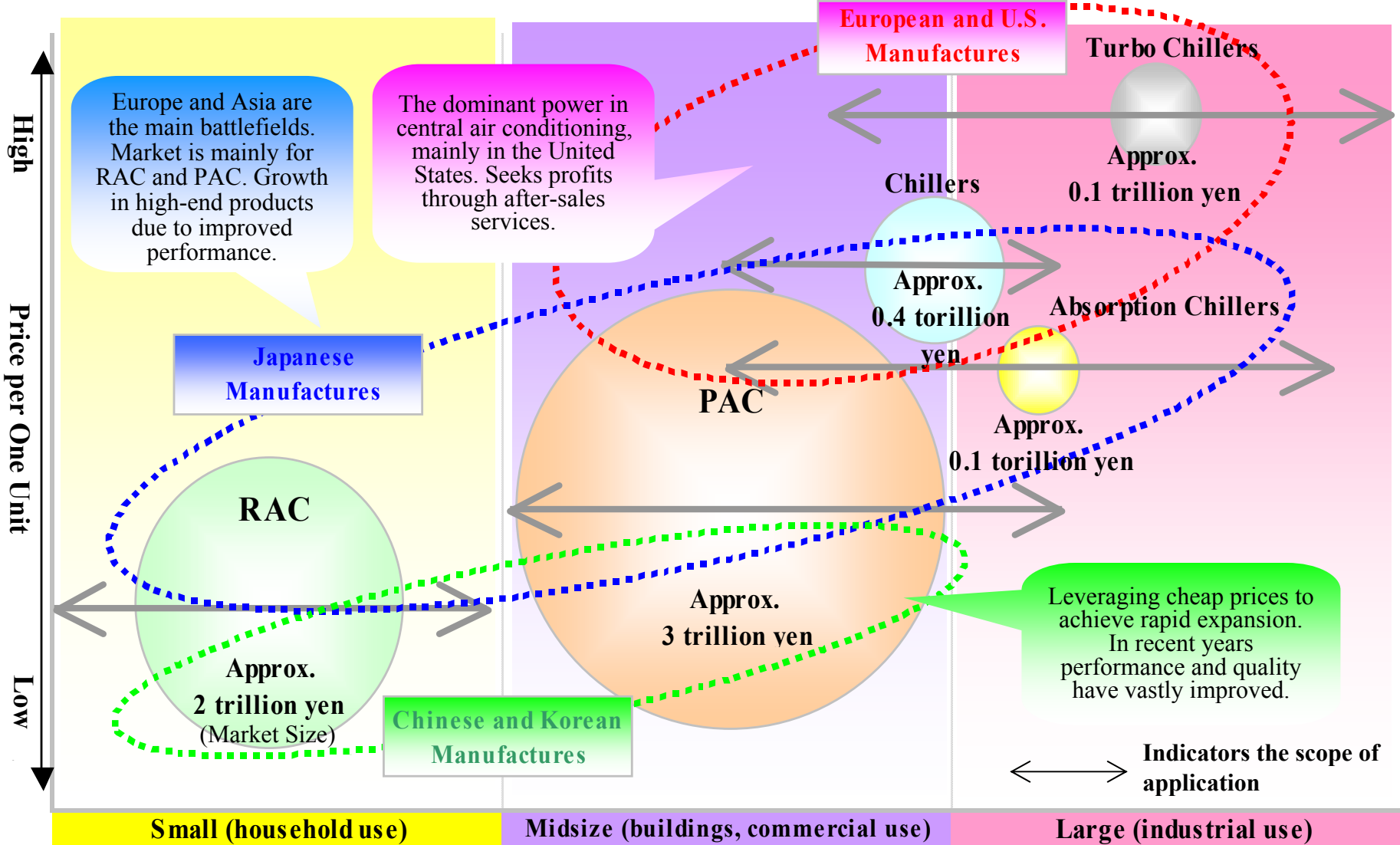
# 2. Operating Environment (1) Overview of the Air Conditioner Market

✓ The air conditioner market is on an expansionary track mainly in Europe, China and emerging nations.



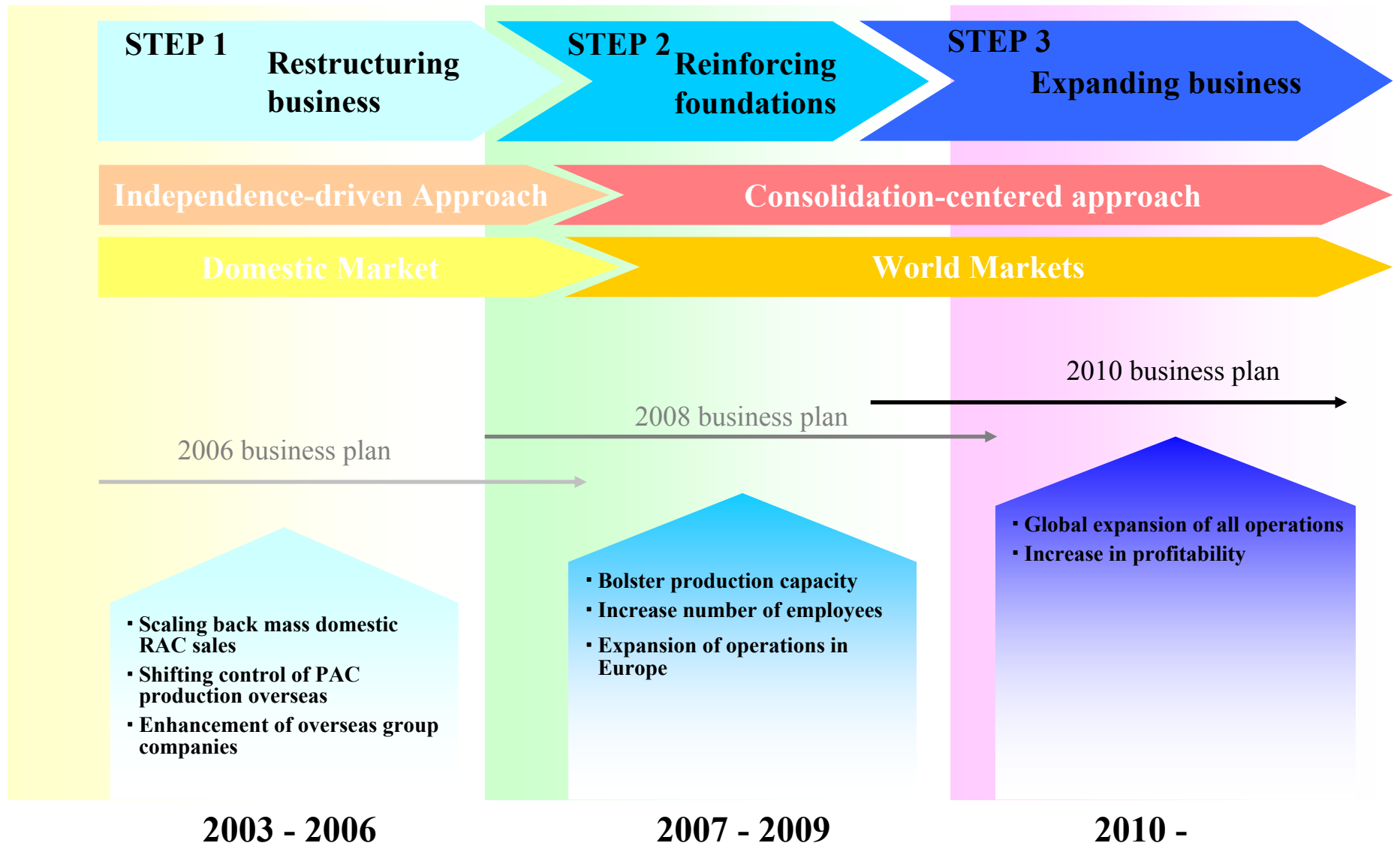
# 2. Operating Environment (2) Air Conditioner Manufacturer Trends

- ✓ Manufacturers in Europe and the United States focus on ducted air conditioning systems, whereas Japanese manufacturers focus on ductless, individual-type systems.



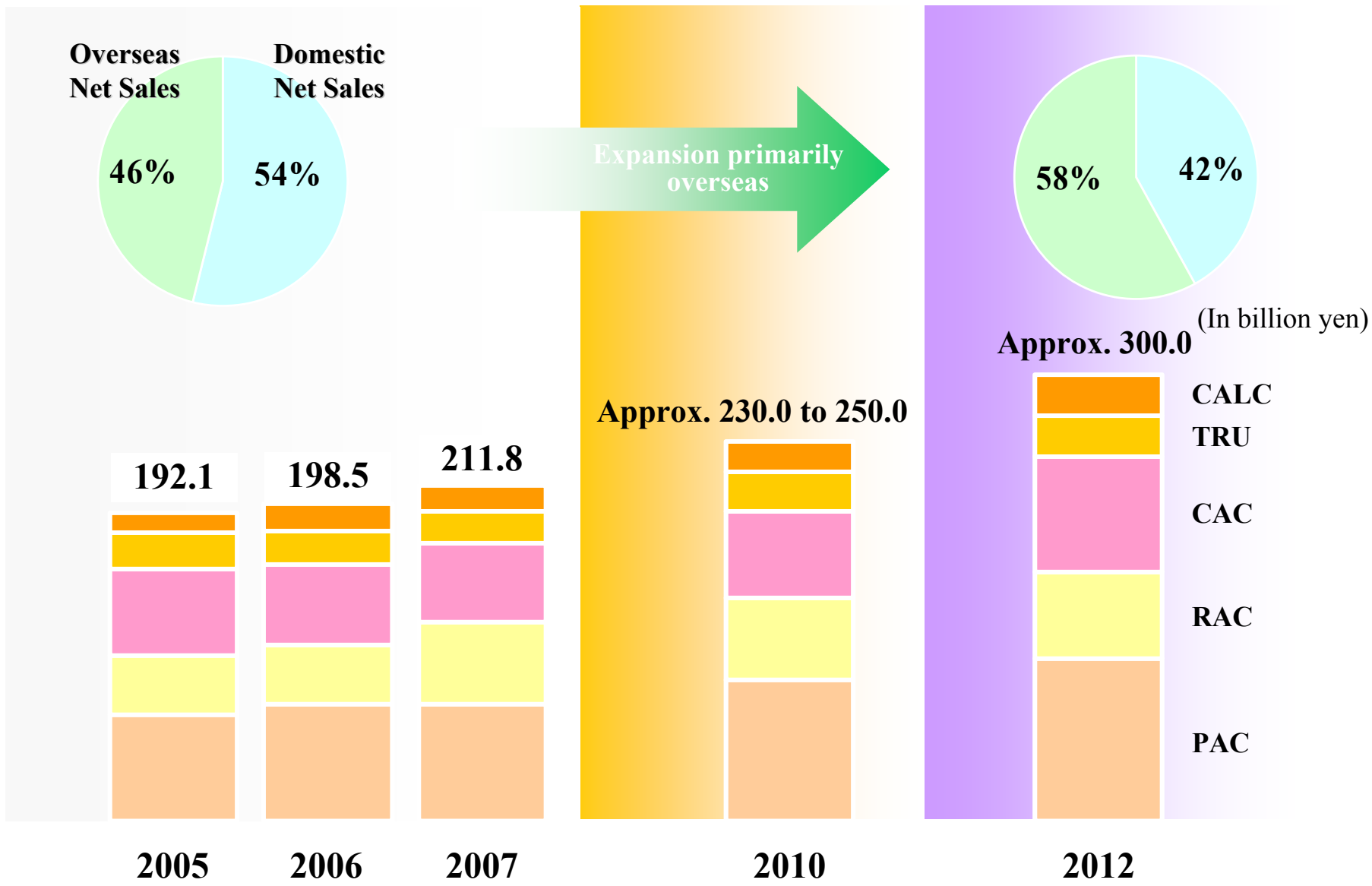
# 3. Medium-Term Business Plan (1) Business Strategy

✓ A build up of resources aimed at reinforcing business foundations is underway



# 3. Medium-Term Business Plan (2) Business Scale

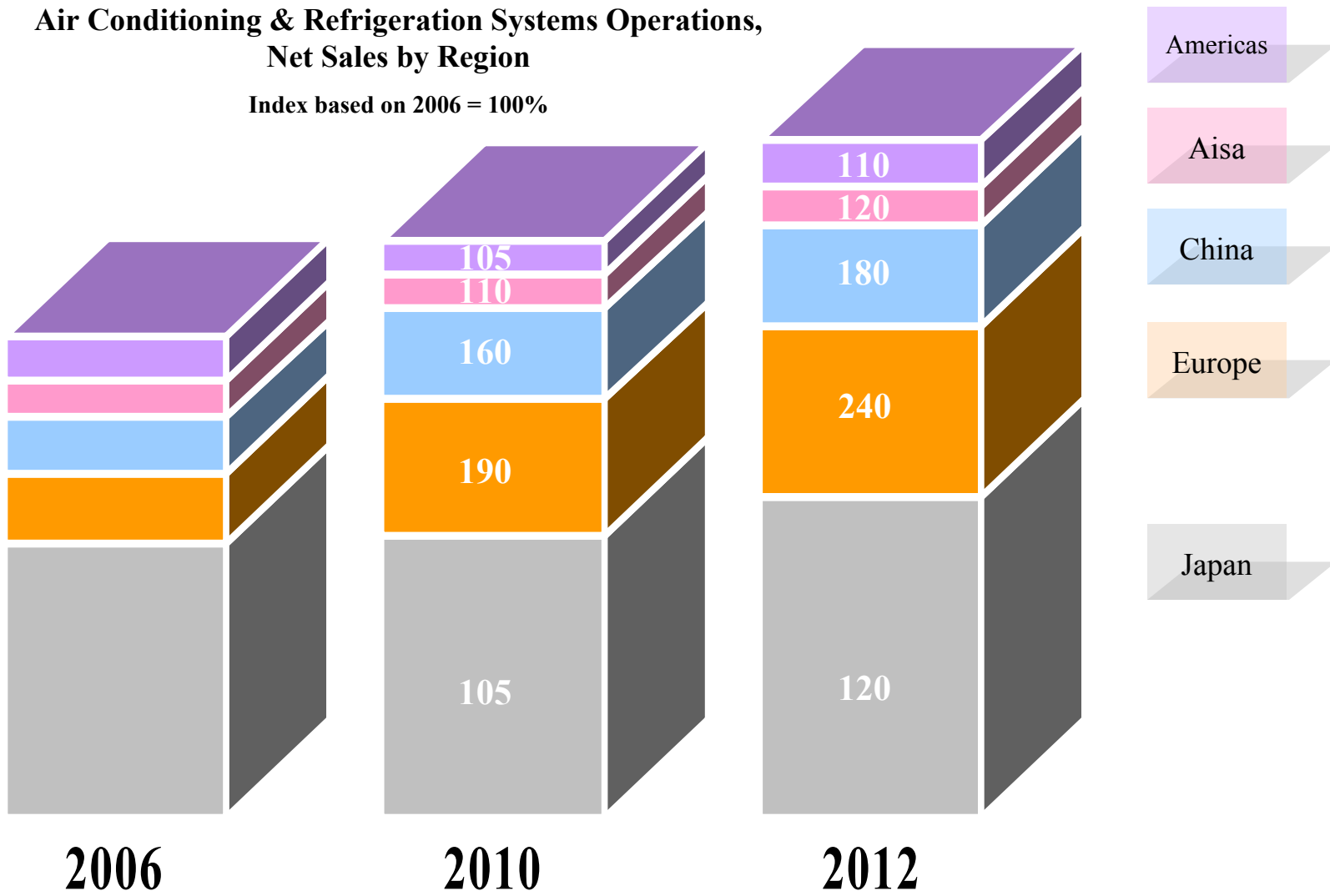
✓ Seek to increase the scale of operations through aggressive expansion into overseas markets



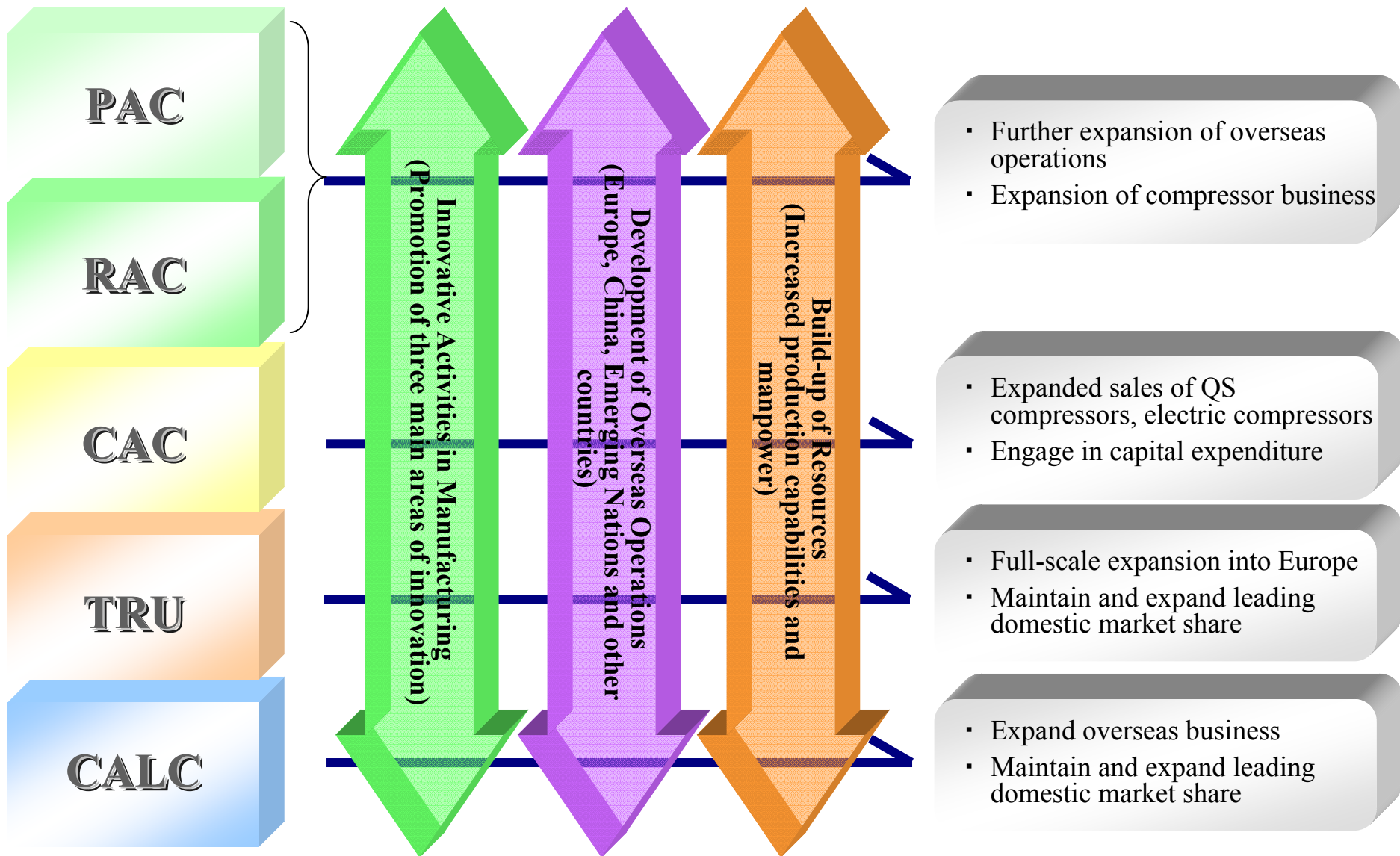


# 3. Medium-Term Business Plan (3) Portfolio According to Region

✓ Even within overseas markets, expansion will focus on Europe and China



# 3. Medium-Term Business Plan (4) Business Development



# 3. Medium-Term Business Plan (5) Global Expansion

Index based on 2006 = 100%

**Net sales**

2006	2012
100	240

- Expand sales of PAC multi-function systems (Enhanced sales structure and technical support)
- Entry into the heat pump market (alliances with major manufacturers)
- Expand sales of truck refrigeration units (expand number of distributors, sales of trailer units)
- Launch RAC high-performance products

- Expand sales of CAC new compressors (QS compressors, electric compressors)

- Cultivate new CAC customers
- Maintain and expand leading market share in CALC and TRU (new product launches)

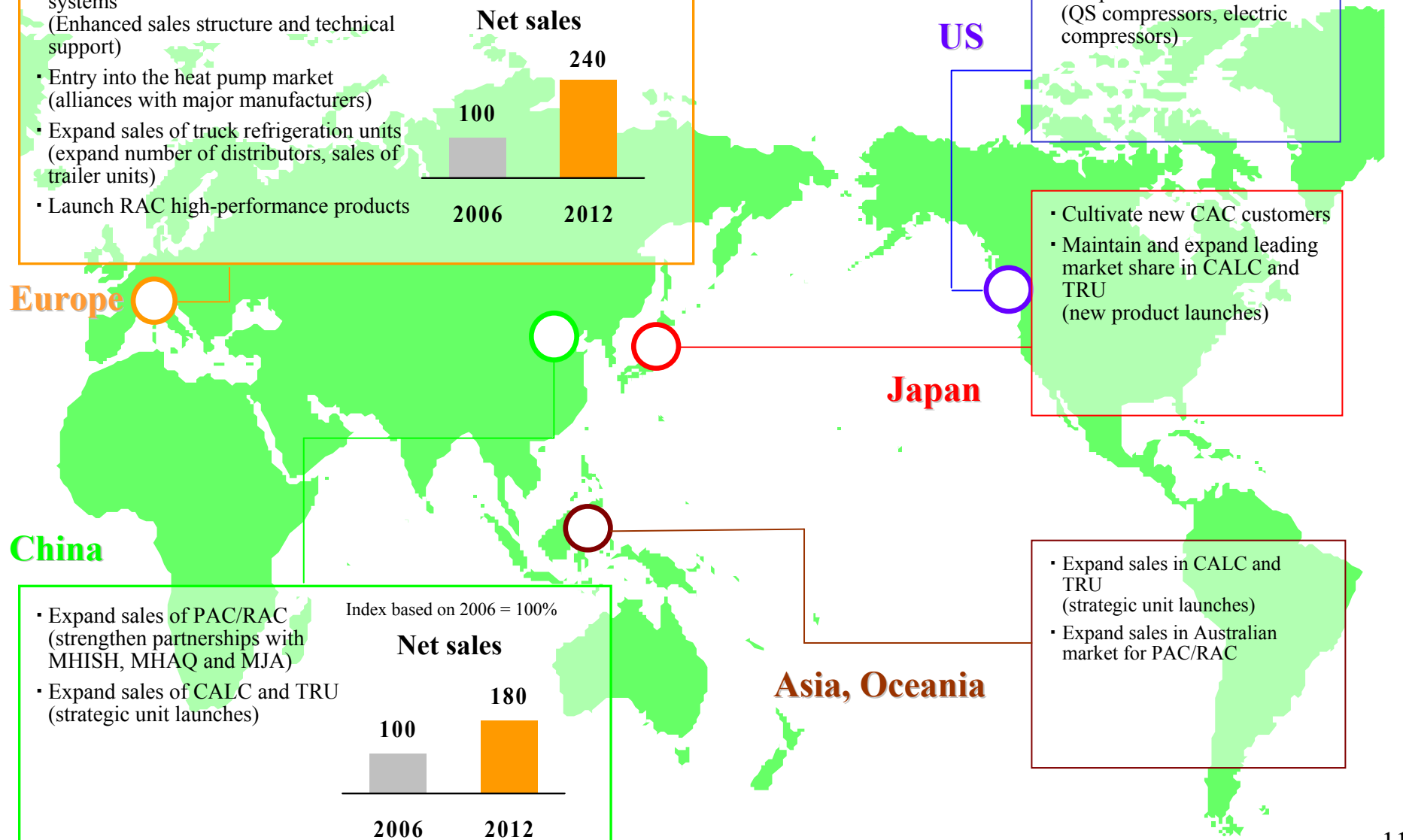
Index based on 2006 = 100%

**Net sales**

2006	2012
100	180

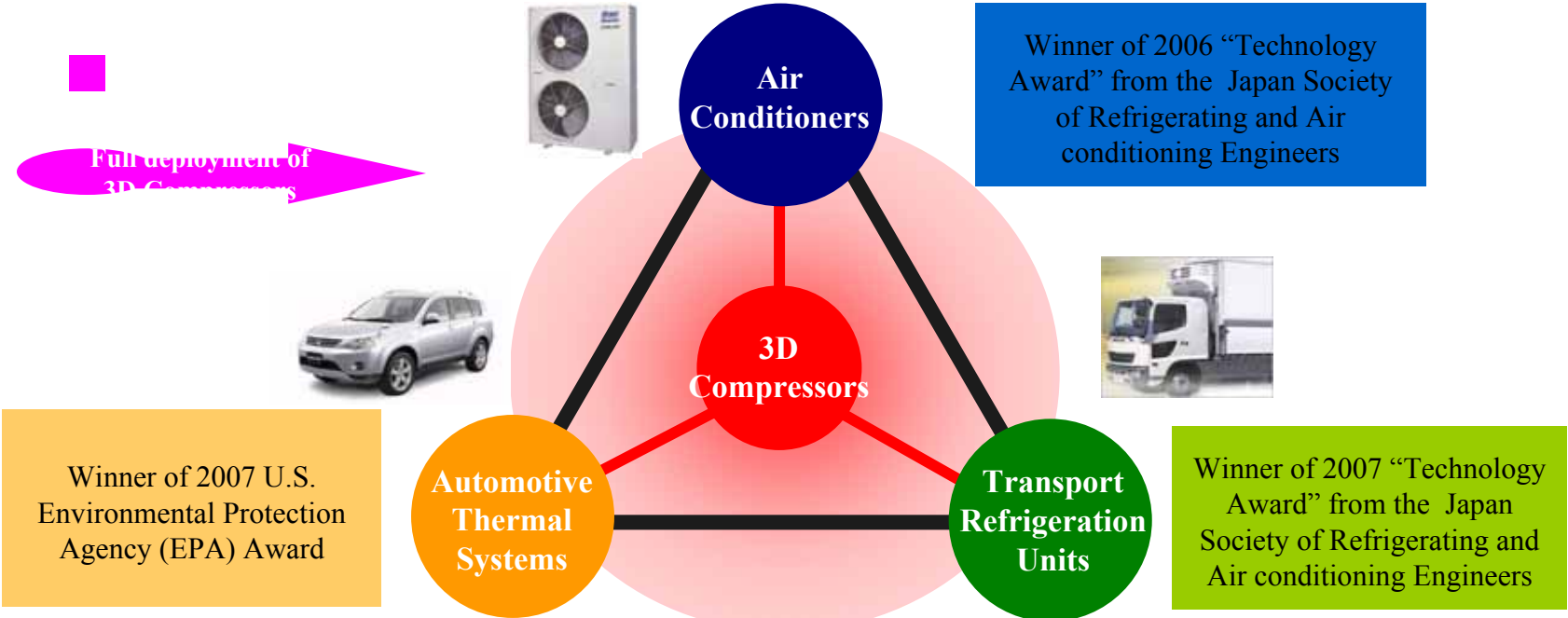
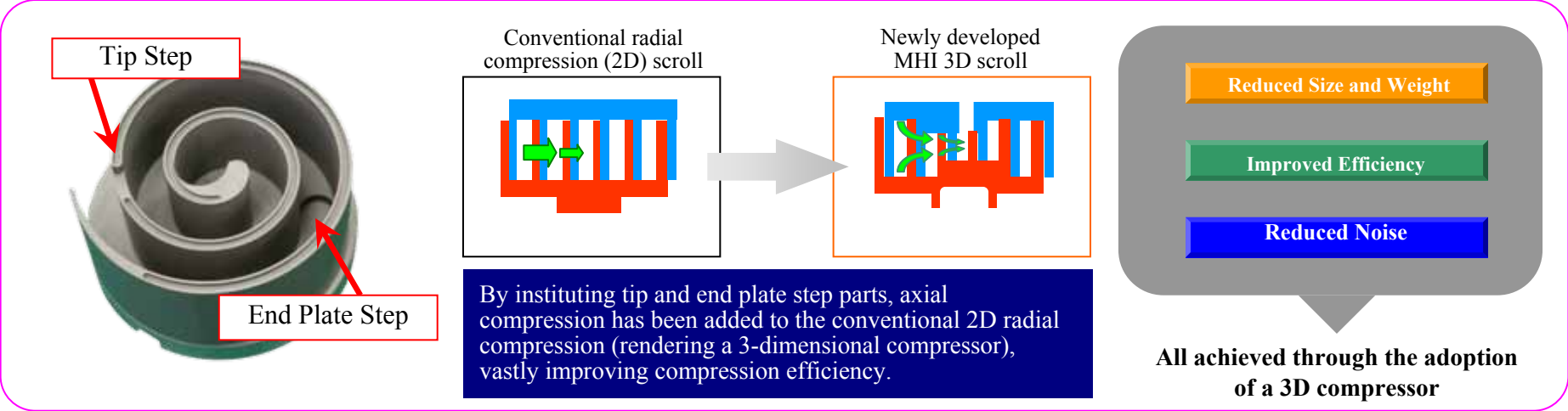
- Expand sales of PAC/RAC (strengthen partnerships with MHISH, MHAQ and MJA)
- Expand sales of CALC and TRU (strategic unit launches)

- Expand sales in CALC and TRU (strategic unit launches)
- Expand sales in Australian market for PAC/RAC



# 4. Recent Developments (1) Synergy Effect

✓ Full deployment of 3D scroll compressors that bring advances in reduced size and weight, improved efficiency and noise reduction



## 4. Recent Developments (2) New Model Centrifugal Liquid Chillers

- ✓ Aiming to generate new demand and capture new markets, a line of new centrifugal liquid chiller products was launched (event held May 19, 2008 to announce new products)

**New Product**  
(Launched May 2008)

**eco-turbo**  
**ETI**



With an inverter equipped as standard, the small-capacity centrifugal liquid chiller achieves unparalleled high-performance! With this new product with an eye towards general-purpose air conditioning as well as plant air conditioning, MHI seeks to retain and further expand its leading domestic market share (60%).

**New Product**  
(Launched October 2008)

**eco-turbo**  
**Heat Pump ETH**



**Reference**  
**Exhibit**



**eco-turbo**  
**Hot Water**  
**Heat Pump**

With this product offering an expanded area of use ranging from a conventional heat sources for cooling to dual heating and cooling (heat pumps), along with the penetration of hot water supplies that utilize factory heat to play a part in all-electric factories, by switching from conventional combustion heaters to electric heaters MHI is seeking to drastically reduce CO2 emissions and expand the field of operations for its centrifugal liquid chiller units.

# 4. Recent Developments (3) Transport Refrigeration Units

- ✓ Commencement of full-scale sales activities through European Zone distributors in Germany, Britain, France, Spain and Italy



Attracting such a great deal of attention as to be featured in local magazines



# 4. Recent Developments (4) European Training Center

✓ An air conditioning equipment training center in Europe is scheduled to begin operation from June of this year

