

# Idemitsu's challenge in global energy market

January 28, 2016

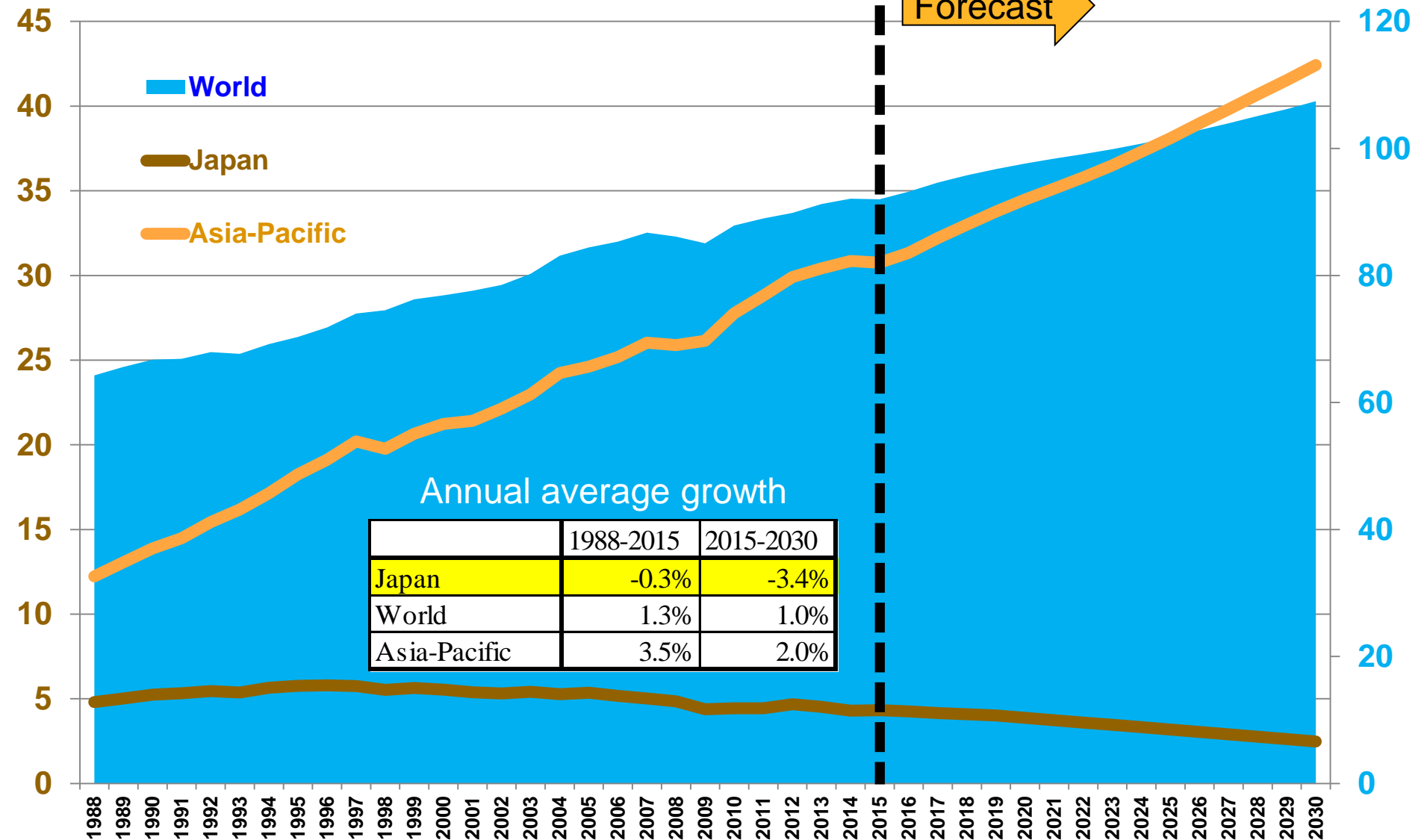
Takashi Matsushita  
Managing Director  
Idemitsu Kosan Co.,Ltd.

- The environment surrounding the Japanese oil industry
- The action of Japanese oil industry
- Idemitsu's domestic and international activity
- Closing remark

# Trend of global petroleum demand

Unit : million BBL/Day

## Asia-Pacific

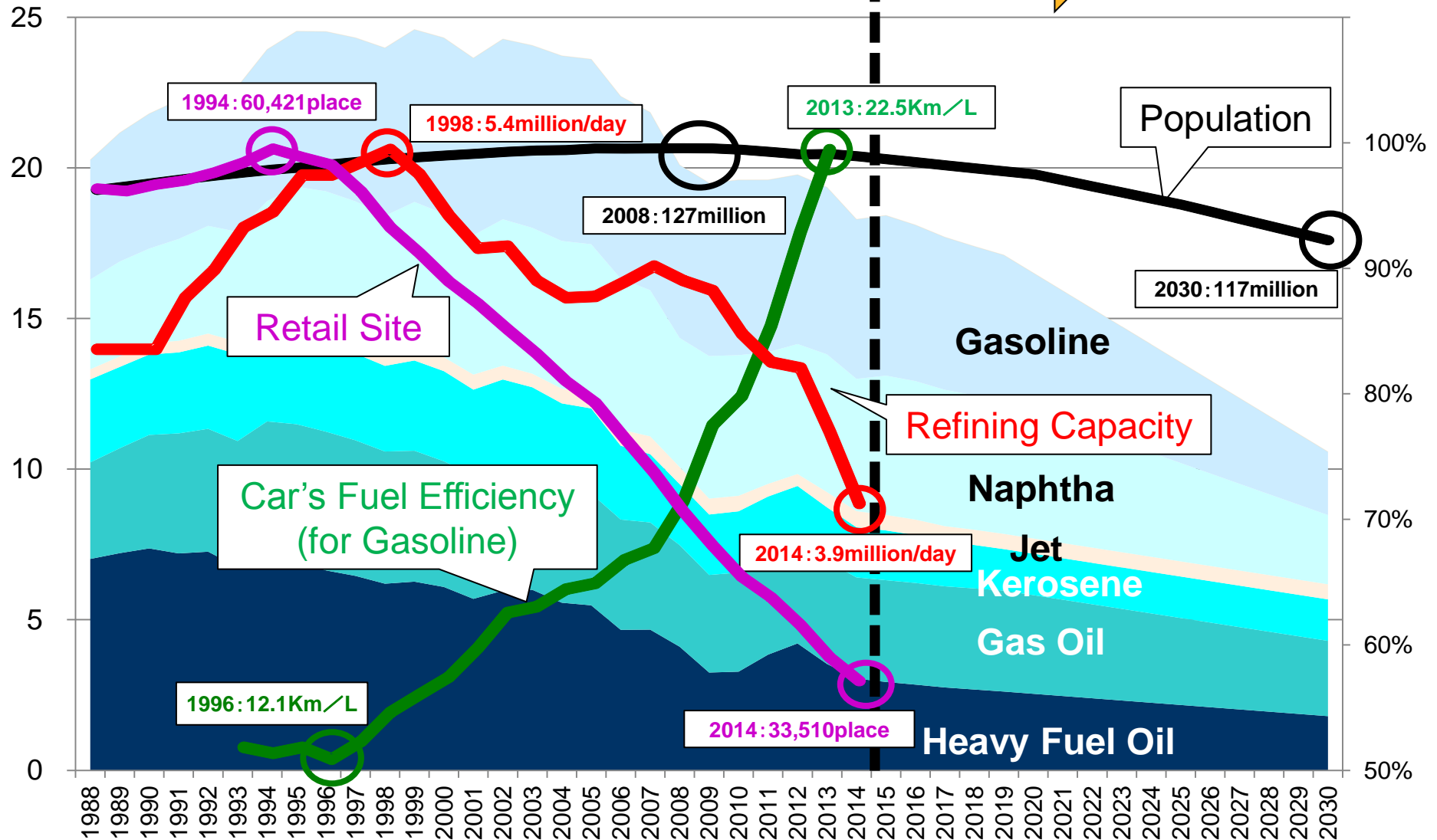


Annual average growth

	1988-2015	2015-2030
Japan	-0.3%	-3.4%
World	1.3%	1.0%
Asia-Pacific	3.5%	2.0%

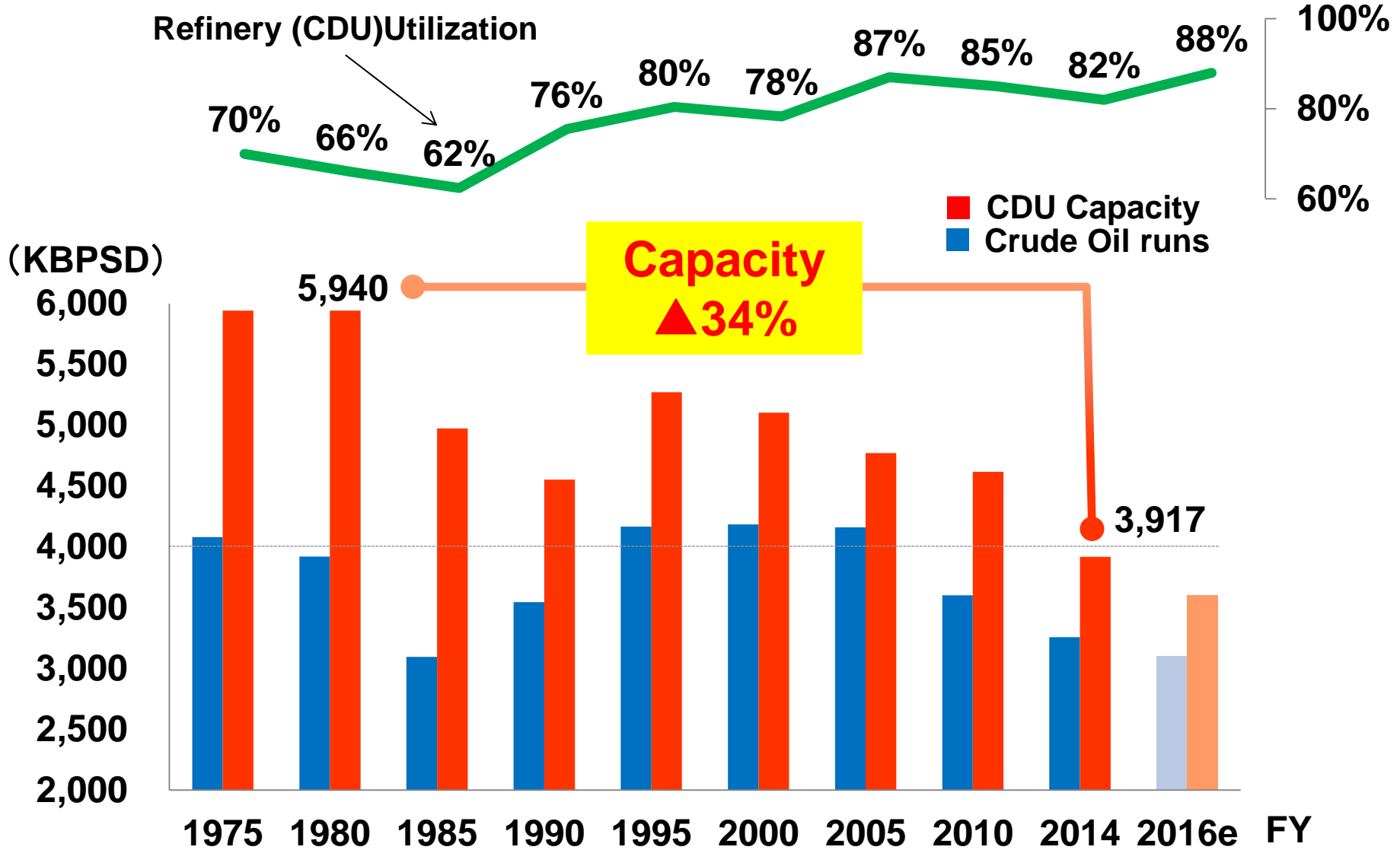
# Trend of Japanese Petroleum Demand

Unit: 10million KL



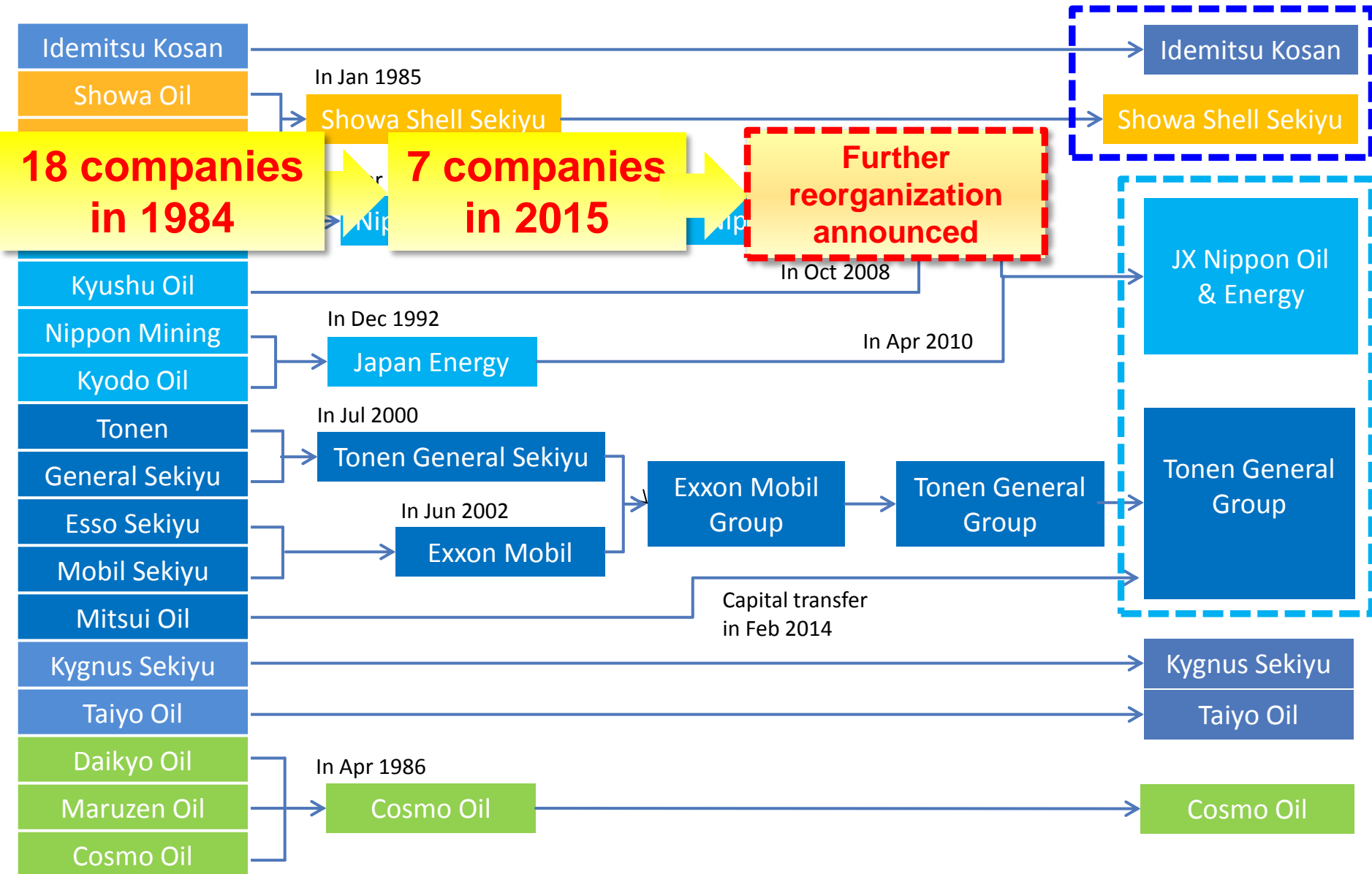
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# Rationalization of refining capacity in Japan



Date Source: IEE Japan, Report "Mizuho Industry Focus Vol176"

# Reorganization of oil company in Japan



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# Strengthen domestic production platform

## ■ Rationalization of refineries/petrochemical plant

- ✓ 3 refineries and 2 petrochemical plants
- ✓ Reduce surplus capacity and maximize utilization

Hokkaido refinery



High conversion refinery

Aichi refinery



Chiba refinery and petrochemical plant



Integrated complex

Tokuyama complex



Olefin center

## ■ Add the value to products

- ✓ Fully utilize resources
- ✓ Enhance energy saving



## ■ Secure safe and stable operation

- ✓ Promote an effective staff training

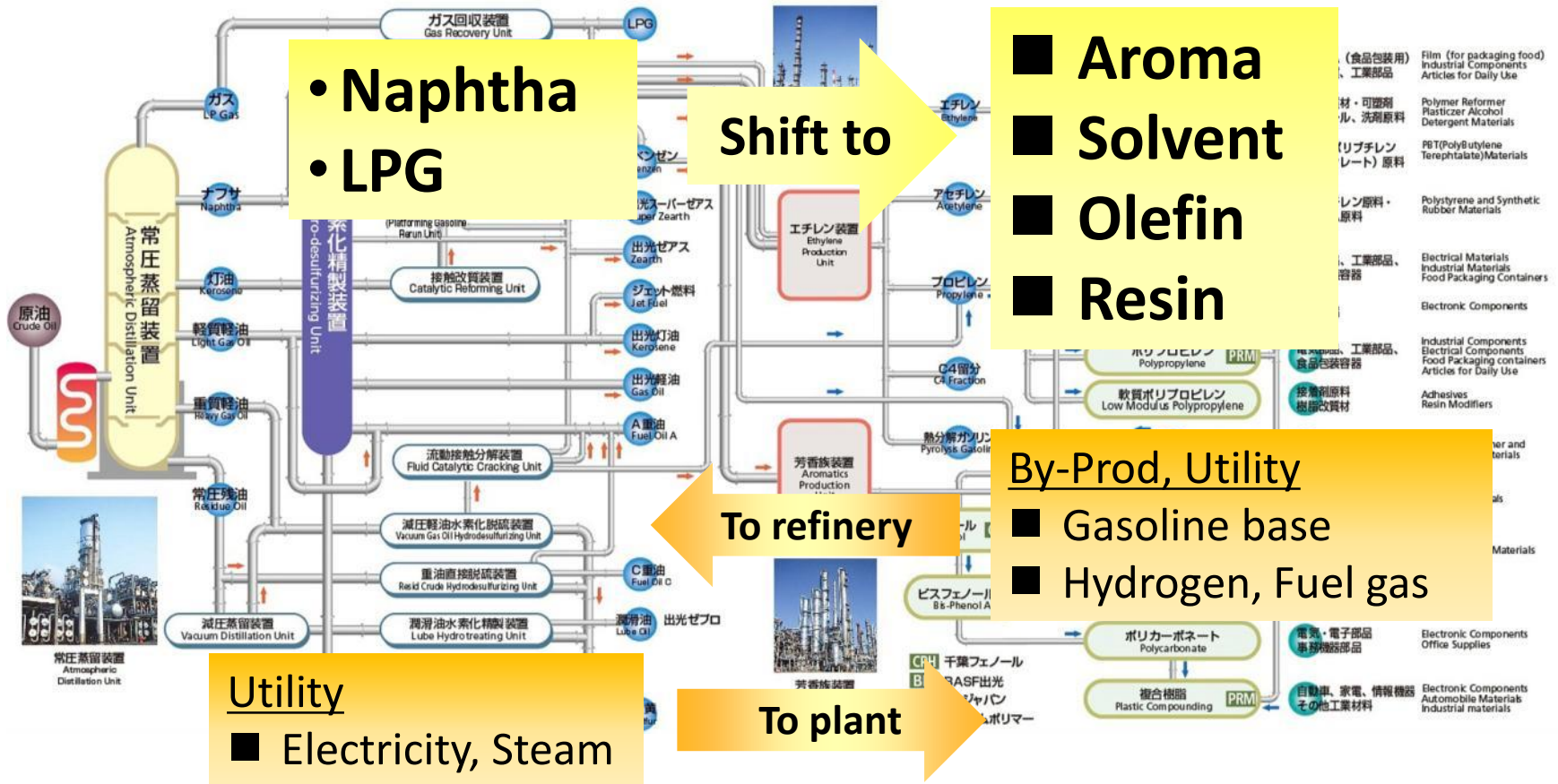


# Fully utilize resources by integrated operation

## From fuel to chemical; Integration of Chiba refinery and plant

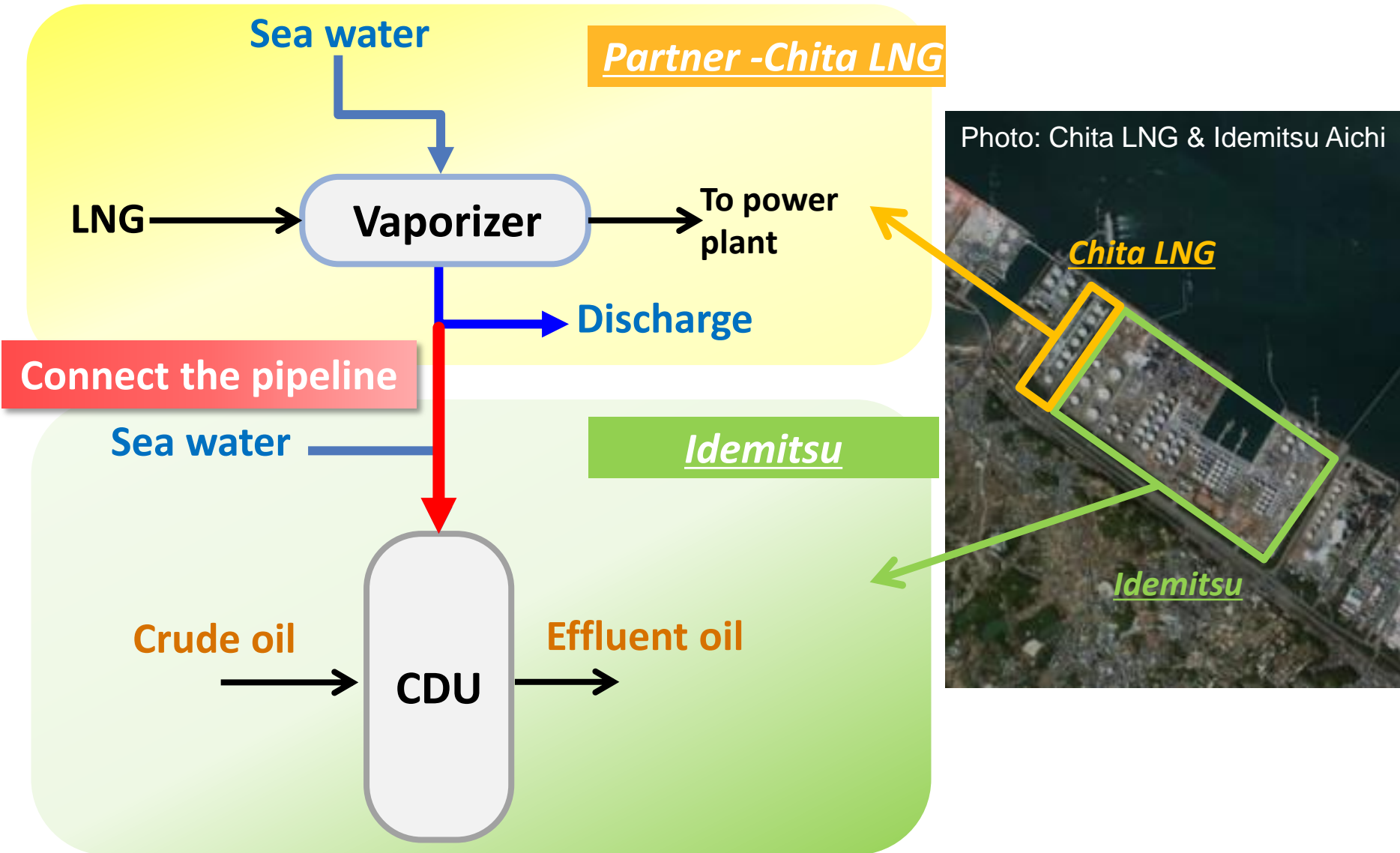
千葉製油所 Chiba Refinery

千葉工場 Chiba Plant



# Enhance energy saving by integration with partner

## Utilize waste cold sea water of partner's plant



# Effective staff training in training plant

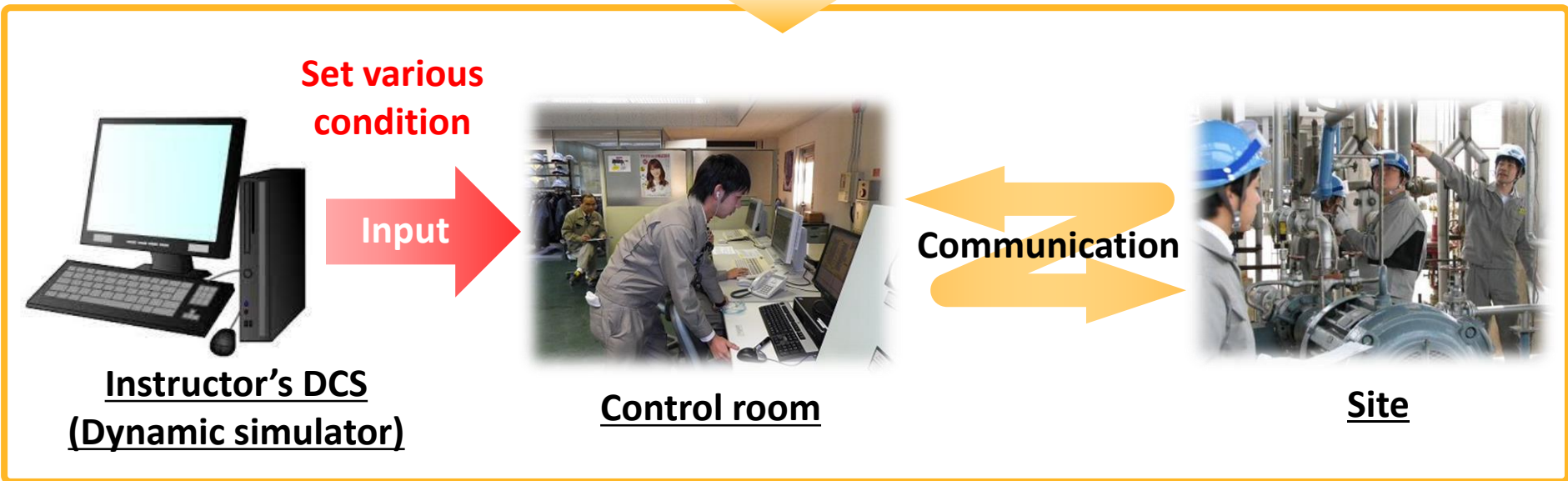
## *Idemitsu training plant*

- Modified from diesel HDS to training plant.
- Realize various operating condition by Dynamic simulator.

(6,300 Idemitsu's operators have had a training.)



**Training plant**



***Trainee from overseas***  
**⇒ Middle East : 800 people / Asia : 900 people**

# Strengthen the stability of domestic supply network

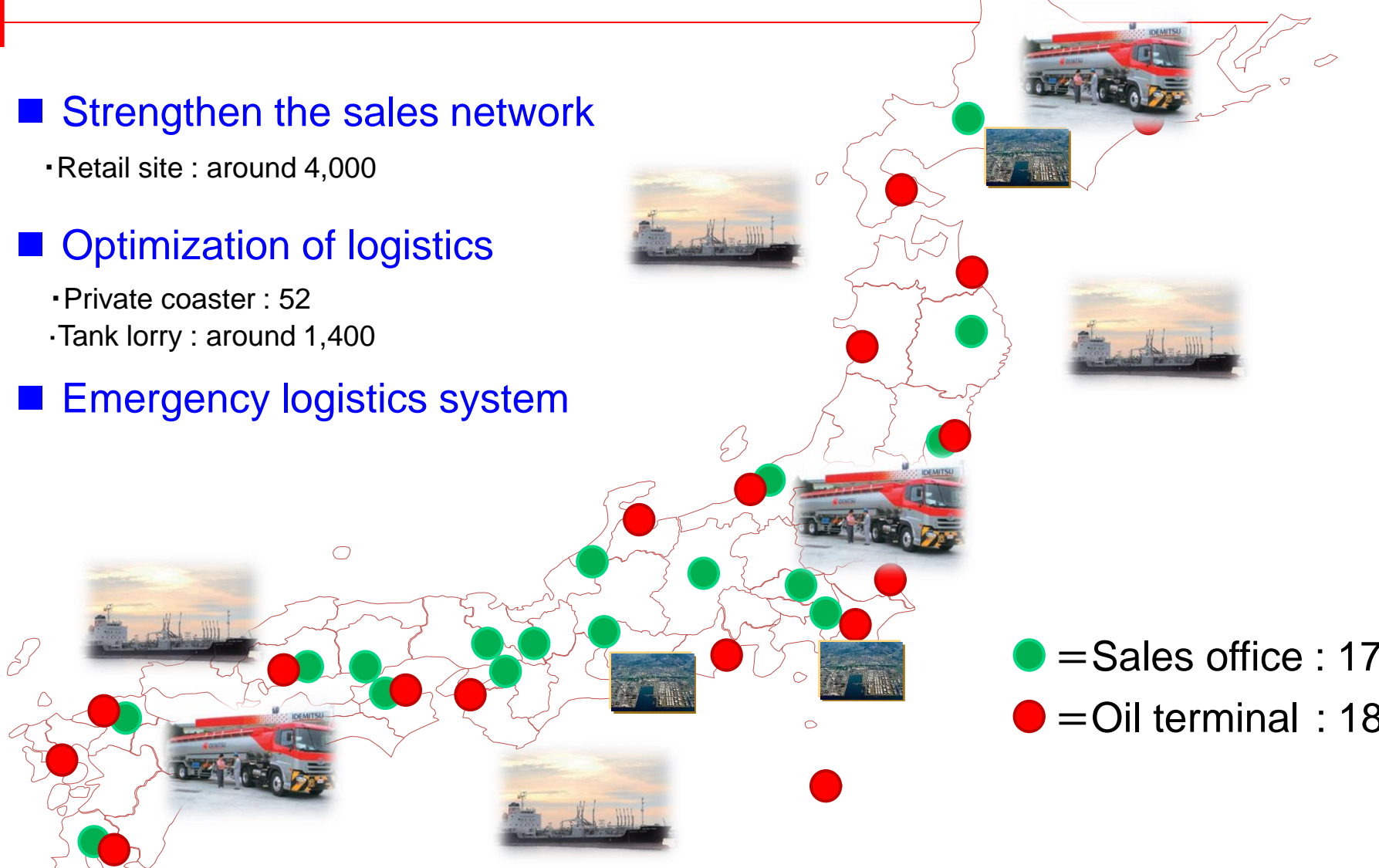
## Strengthen the sales network

• Retail site : around 4,000

## Optimization of logistics

- Private coaster : 52
- Tank lorry : around 1,400

## Emergency logistics system



- Idemitsu's supply network cover all over the country.
- Securing stable supply including times of natural disaster.

# Idemitsu's Renewable Energy Business

## Solar Power



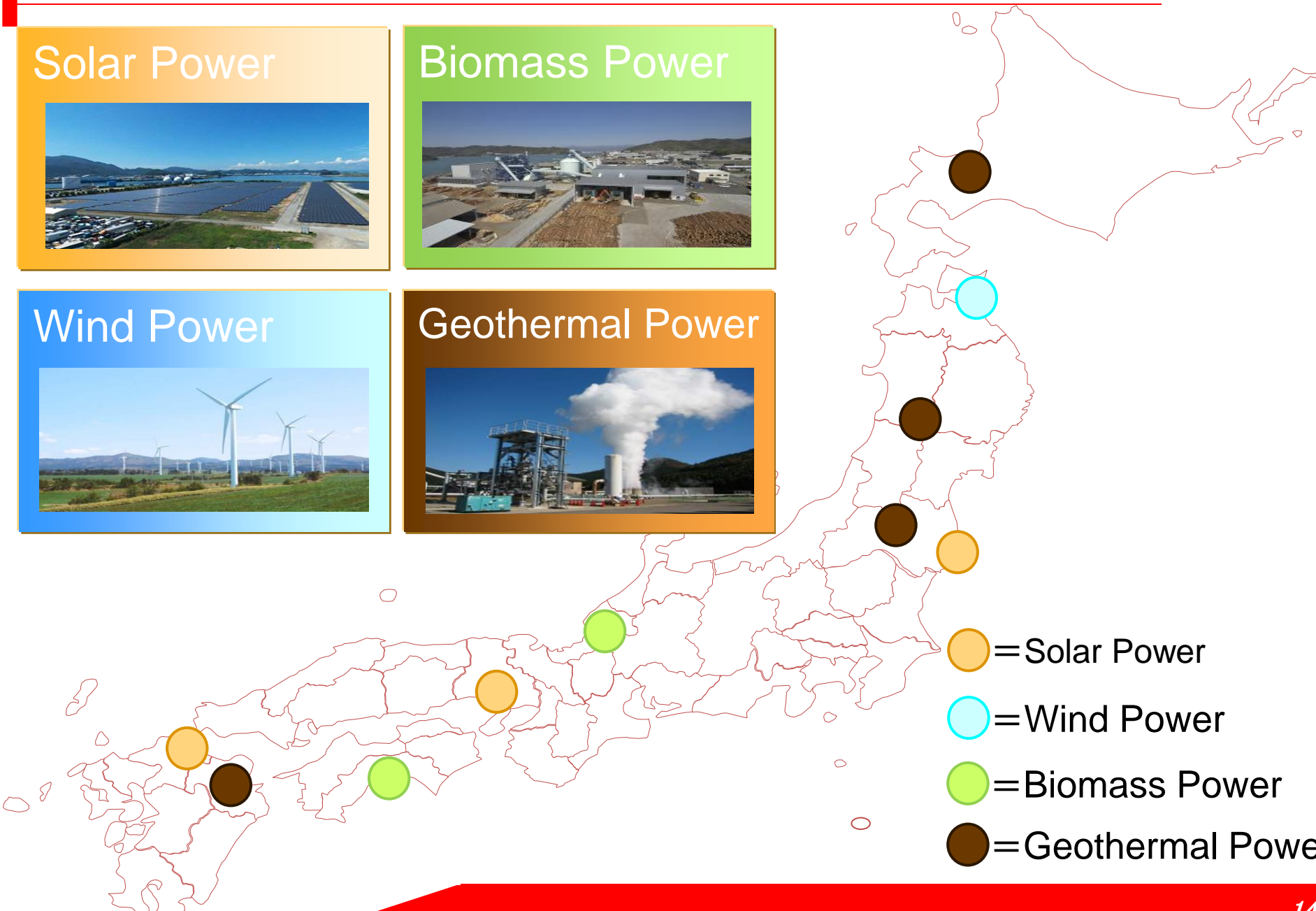
## Biomass Power



## Wind Power



## Geothermal Power



● = Solar Power

● = Wind Power

● = Biomass Power

● = Geothermal Power

# Idemitsu's international activities

## Petroleum Products



Nghi Son Refinery & Petrochemical Complex



Ras Laffanrefinery



Idemitsu International Asia (Singapore)



Freedom Fuels



Idemitsu Apollo Corporation(U.S.A)

## Lubricants



Idemitsu Lube Vietnam Co.,Ltd.



## Resources



Oil Exploration



Coal Mining



Gas Business



Uranium Mining

## Petrochemical Products



Idemitsu SM Malaysia



Idemitsu is expanding the business in the growing market.

# Expanding functional materials businesses

Idemitsu's unique products through the development of new technologies

## Lubricants

High-performance, environmentally friendly products.



## XAREC SPS (Syndiotactic Polystyrene)

XAREC boasts remarkable heat and chemical resistance, as well as superior dimensional stability, making it the preferred SPS in many fields.



## OLED materials

Excellent color reproduction capability and high-speed response to moving images.



## Agri-Bio

Environmentally friendly microbial products to prevent crop disease.





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- **Stabilizing and strengthening our business foundation in Japan**
- **Expanding global petroleum business and supporting Japan's energy security**
- **Promoting global growth strategies in the functional material businesses**