



Fuel flexibility



Group Vice President, Wärtsilä Power Plants, Christoph Vitzthum

Capital Markets Day, 16 June 2006

World leader in selected niches

1 Baseload Power Generation

Developing world, islands, remote areas

2 Grid Stability and Peaking

Where no hydro available

3 Industrial Self-Generation

Oil & gas, mining, textile, cement, municipalities



Baseload power generation

- Niche market: developing world, islands, remote areas
- Market 1,517 MW year 2005 (445 MW gas, 1,072 MW oil)
- Market share 35.2 % year 2005 (20.2 % gas, 38.8 % oil)
- Competition
 - HFO engines – MAN, CAT-MAK
 - Gas engines – Jenbacher, Caterpillar, Deutz
 - Small industrial gas turbines – GE, Alstom, CAT-Solar
- Wärtsilä installed base 22,400 MW, 2,000 power plants

S	W
Market leader position, market share Market access (global network) Product portfolio (modularity, size & fuels) Flexible offering (scope, O&M, WDFS) Project management capabilities 24/7h global service Large installed base	Lack of real big power plant products
O	T
Construction of gas infrastructure Capture market share from gas turbines Emission trading HFO-gas conversions	Fuel price turbulences/variations Increasing costs of raw materials

Baseload power generation



Manaus, Brazil, 132 MW



Kohinoor, Pakistan, 113 MW



Subic Bay, Philippines, 118 MW



Kingston, Jamaica, 96 MW



- Niche market: ancillary services & peaking, USA
- Market 1,350 MW year 2005, only gas
- Market share 8.6 % year 2005
- Competition
 - GE aeroderivate gas turbines
- Wärtsilä installed base 390 MW, 3 power plants

S	W
Market penetration, 3 references Perfect product features Modular product, flexible sizing EPC and O&M capabilities Strong service network in the USA	Limited business experience High €-portion of costs
O	T
Product & Wärtsilä unknown to US utilities One competitor only - ideal marketing position The A/S business will expand to other countries Opportunity to become THE A/S leader	High gas prices Emerging market Main competitor very strong \$ to € rate

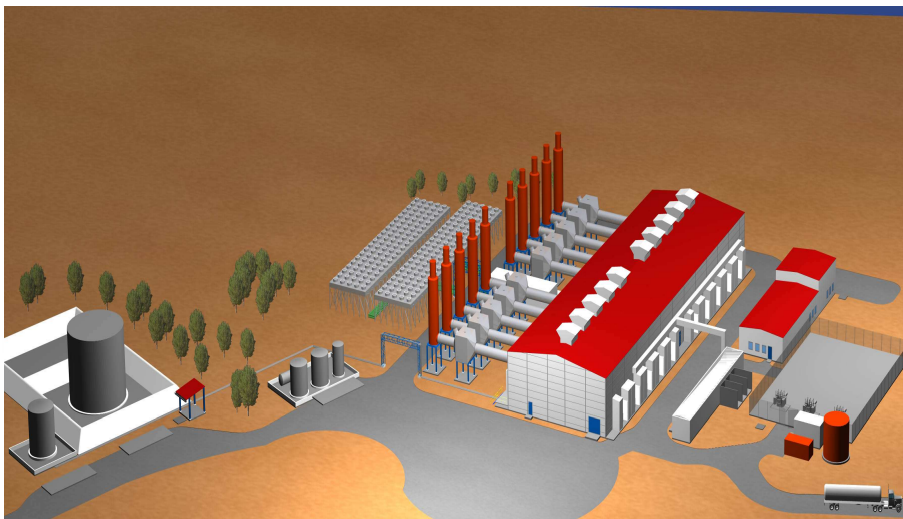
Grid stability and peaking



Reno, Nevada, 116 MW



Plains End, Colorado, 116 MW



Humbolt, California, 163 MW

- Niche market: oil & gas, mining, textile, cement, municipalities
- Market 2,372 MW year 2005 (1,630 MW gas, 742 MW oil)
- 1-3.5 MW gas market 1,350 MW year 2005!
- Market share 28.0 % year 2005 (12.1 % gas, 74.0 % oil)
- Competition
 - HFO projects – MAN, CAT-MAK
 - Gas projects – Jenbacher, Caterpillar, Deutz (gas engines) and CAT-Solar, Turbomach (industrial gas turbines)
- Wärtsilä installed base 12,400 MW, 2,200 power plants

S	W
Market leader in large applications Market access (global network) Financial services Project management Global service network Large installed base	Products cover only upper power range Cost efficiency in 1-engine projects
O	T
Emission trading - higher electricity prices CHP projects are again profitable enough Gas infrastructure coming to developing world	High gas prices High speed engines

Industrial self-generation



Brewery, Gothenburg, Sweden, 14 MW



Airport, Madrid, Spain, 30 MW



Oil & Gas, Siberia, Russia, 24 MW



Mining, Chile, 47 MW

1 Scope flexibility

- ED → EEQ → EPC
- True modularity
- Operations & Maintenance

2 Fuel flexibility

- HFO
- LFO
- Bio-oils
- Crude oil
- Gas

3 Operational flexibility

- Base load
- Intermediate load
- Peaking
- Dynamic features



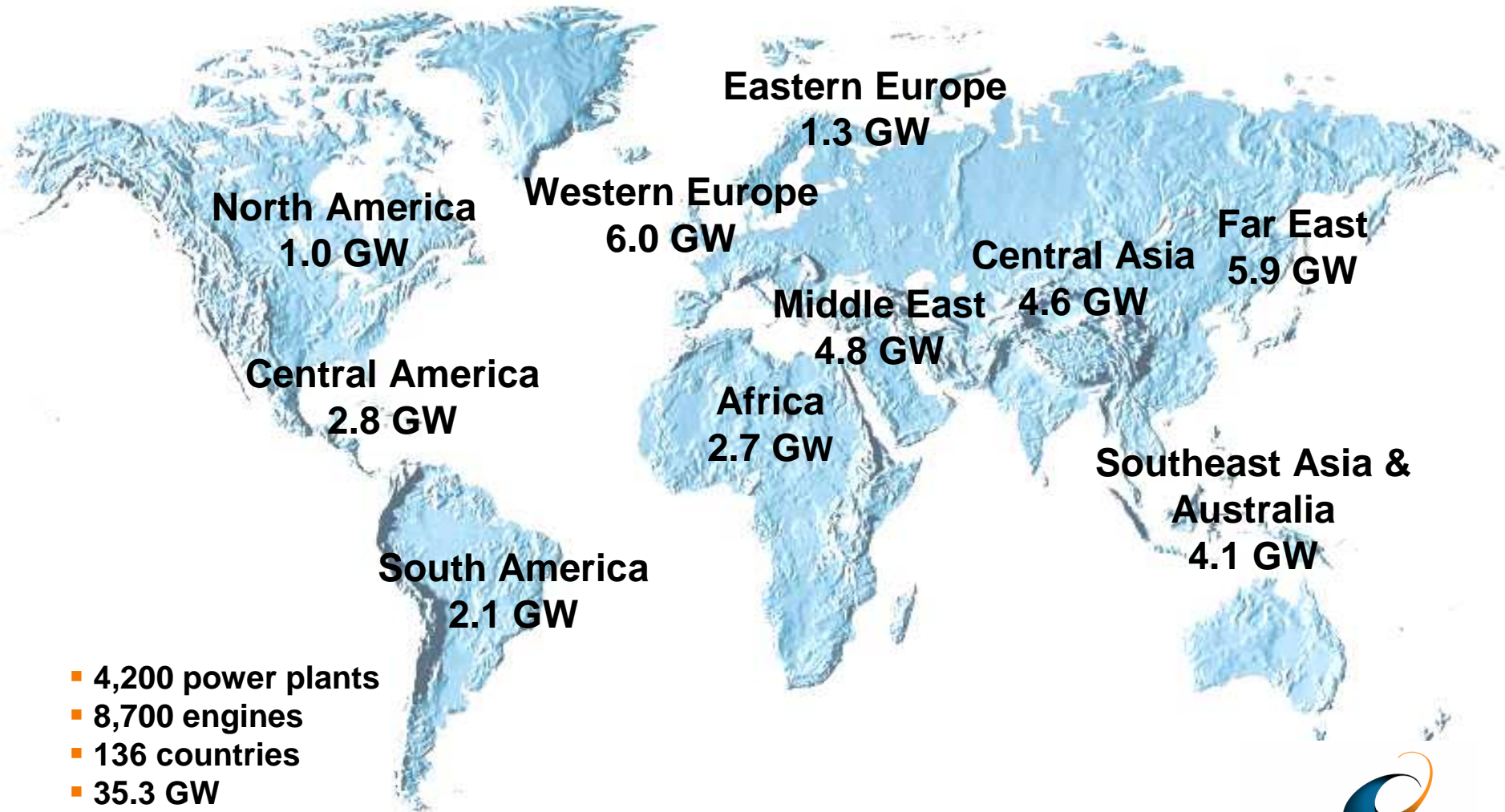
- **Global, local sales and service network**



- **Power Plant technology competence**

Organizational competencies

- Proven delivery performance



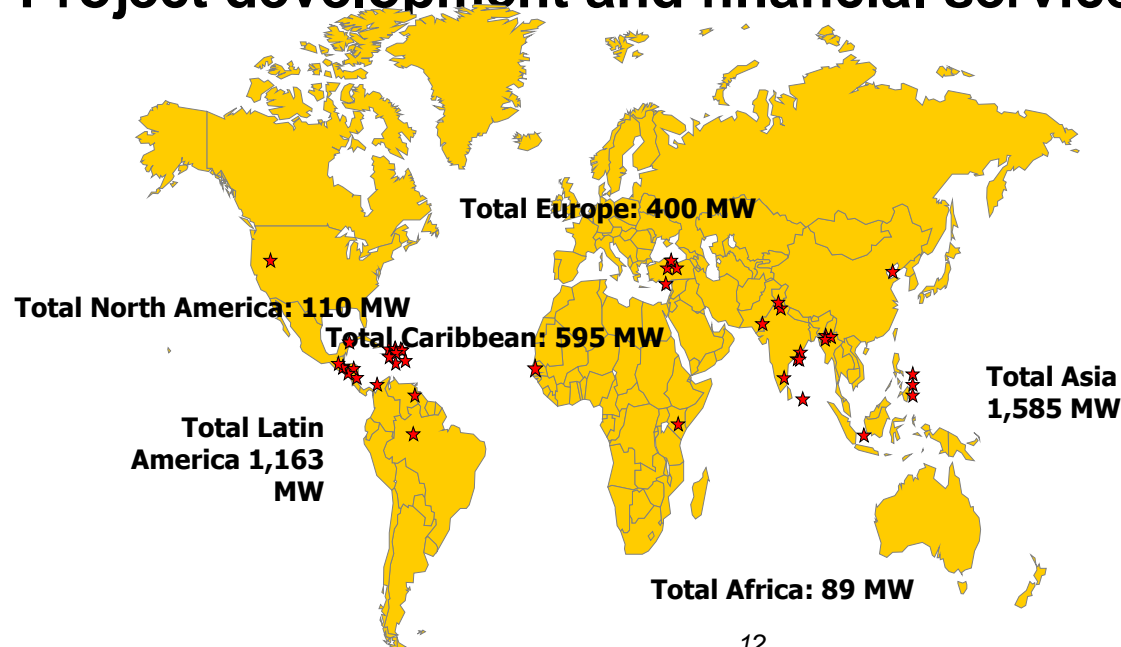
- 4,200 power plants
- 8,700 engines
- 136 countries
- 35.3 GW

- **Lifecycle services**

- Spare parts
- Maintenance
- Remote condition monitoring
- Long term operation of power plants



- **Project development and financial services**



Growth is accelerated through

- **Continued fuel flexibility development**
 - water oil emulsions
 - renewables
 - gas fuels
- **Application development**
 - stability services
 - oil and gas industry products
- **Product development**
 - reduction of plant costs
- **Distributed power generation**
 - small engine packaging

and



through

- **Competence development**
 - Experts in our selected niches

- **Consultative selling**
 - We will be the most valued business partner of all our customers
 - Power Partner



Thank you!



WÄRTSILÄ