My scope for today presentation

- Triple E for Excellence
- Technology leadership
- Flexible Manufacturing
- Excellent suppliers relations
Triple E is …

… the initiative-driven program to take Wärtsilä Engine Division to sustainable world-class performance by the end of 2006

**ENERGY**

Capture opportunities and make things happen!

**EXCITEMENT**

We feel highly motivated about what we do and how we do it!

**EXCELLENCE**

Do things better than anyone else in our industry!
- Reaching the targets will require a **step-change in the business process** improvement loop

- **Line management is responsible for driving** TripleE initiatives

- **Transparent tracking** of initiative progress through milestones and KPI development
  - People
  - Quality
  - Cost
  - Delivery
**TripleE** - Link our KPI’s to “DuPont”

**Sustainable profitable growth**

**Drivers**

- Increase Profits
  - Profitable Growth

- Improve Margins
  - Grow Sales

- Reduce Working Capital
  - Optimize Fixed Assets

**Levers**

- Increase Profits
- Improve Margins
- Reduce Working Capital

**Sublevers**

- Sales Productivity
  - Customer Satisfaction
  - Product Development
  - Department Costs
  - Costs of Goods Sold

- Non IB Current liabilities & Provisions
  - Receivables
  - Inventories
  - Acquisitions
  - Investments and divestments

**KPI’s**

- MTBF / MTBUI
  - Problem solving time

- Non-punctuality / Non-completeness

- Release date vs. promised date

- Warranty cost/kW

- Total warranty cost vs. budget

- Non-conformity costs before handing over

- Accuracy of estimates

- Material cost development

- Capacity cost

- Product costs/product type

- Vendor non-quality level

- Accuracy of payments

- Material inventory turnover speed

- Vendor delivery non-reliability

- Capital employed
TripleE - Delivers an additional step change

- Industrial Restructuring 7 → 2 plants
- Platform for continuous improvement
- TripleE program
The new mindset – step out from our comfort zone...
The new Engine division supports Triple E as from May 1:st

Group Vice President
Lars Hellberg

Secretary
Tuula Kivelä

Finance
Hans Westö

Global Research & Development
Klaus Heim

Delivery Centre
Vaasa
Juha Kytölä

Delivery Centre
Trieste
Sergio Razeto

Business Office
Frans Don

Delivery Excellence Development Centre
Erik Pettersson

Cross WED & Cross Wärtsilä
Impact of technology drivers

Technology drivers
- Risks
- Ethics
- Competition
- Customer needs
- Trends
- Environment

Technology users
- Suppliers
- Wärtsilä
- Customers
- End users

TECHNOLOGY LEADERSHIP
Global fuel versatility needs

available Wärtsilä engine technology


Diesel Oil

Heavy Fuel

Natural Gas

Crude Oil

Orimulsion®

Bottom Oils

Bio Oils

TECHNOLOGY LEADERSHIP

© Wärtsilä
Efficiency development of Wärtsilä engines


Efficiency

50%

40

© Wärtsilä
Environmental: Legal regulations

Ship & Power plant requirements follow automotive regulations

Wärtsilä utilize e.g. Common Rail technology to ensure our leadership in the field of emission
The new 4-stroke engine generation – Wärtsilä 46F

Power 1250 kW/cyl
Speed 600 rpm
BMEP 25.9 bar

Design for manufacturing ➔ reduced cost to support profitable growth

Common Rail Technology
The new 2-stroke engine generation – RT-flex 2-stroke

- Rail unit & WECS
- Redundant servo oil supply lines
- Redundant fuel oil supply lines
- Fuel pump 1000bar
- High efficiency Supply unit
- Servo oil pump 200bar

Common Rail Technology

Size 0: RT-flex50
Size I: RT-flex58T-B
    RT-flex60C
Size II: RT-flex68T-B
Size IV: RT-flex84T-D
    RT-flex96C
Wärtsilä Fuel Cell program to support future market requests

Commercial applications

- Stationary
- Marine
General concerns
- Global warming (CO₂)
- Air pollution (developing countries)
- Increased demand for energy
- Increase of energy prices

Power plant
- **Demand** for electricity growing (2 % / annually)
- **Natural gas** preferred fuel

Marine
- **Diesel engines** will continue to dominate
- Pressure to improve fuel quality and **reduce emissions**
Wärtsilä Manufacturing units

Wärtsilä 20
Wärtsilä 32
Wärtsilä 32DF
Wärtsilä 32GD
Wärtsilä 34SG

Wärtsilä 26
Wärtsilä 38
Wärtsilä 46
Wärtsilä 50 DF
Wärtsilä 64
Sulzer ZA 40S
Wärtsilä has signed a JV Contract with Shanghai Marine Diesel Engine Research Institute (SMDERI) which is an affiliate of China Shipbuilding Industry Corporation (CSIC) to produce Wärtsilä Auxpac W20 gensets as from second quarter 2006.
The new Corporate Supply Management team
as from June 1:st

Vice President Corporate Supply Management

Engine Division
Divisional Head of Supply Management

Ship power
Divisional Head of Supply Management

Power plant
Divisional Head of Supply Management

Service
Divisional Head of Supply Management

Category Managers
CM
CM
CM
CM
CM
CM
CM
CM

a) A lean corporate supply management organization to drive realization of group-wide synergies

b) Unification of divisional strategic sourcing, operational and project purchasing activities under divisional Supply Management

c) Key Objectives ➔ Excellent supplier relations with a lean supplier base including emerging markets focus to ensure world class cost management and quality deliveries on time!
Our commitment → OUR Triple E program!

By the right PEOPLE

QUALITY

COST

DELIVER

Supply Management
Excellent Relations

© Wärtsilä