Operations At The Porvoo Refinery

Ilkka Poranen
Senior Vice President, Production and Logistics

Capital Markets Day
29 September 2009

NESTE OIL

refining the future

The Porvoo Site Is The Largest Industrial Area In The Nordic Countries (1,300 Hectares)

Porvoo Is A Very Integrated site

- Neste Oil's Porvoo refinery

- Borealis Polymers (Petrochemicals, polyolefin plants)
- Ashland Finland (Polyester resins)
- StyroChem Finland (Polystyrene)
- AGA (Nitrogen, oxygen)
- Gasum (Natural gas)
- M-I Finland (Flow improver additives)
- Finnish National Railways
- Innogas (LPG)

Altogether, around 4,000 people work at the Porvoo industrial site (1,200 at the refinery)

Key Aspects Of The Porvoo Refinery

- One of the most advanced and versatile refineries in Europe, established in 1965
- Very high complexity (12.1 in Nelson, 14.5 in Solomon)
- Crude distillation capacity, 205,000 bbl/d (annual output close to 12 Mmt)
- Extensive storage facilities: 121 above-ground tanks (total capacity 3 Mm3), 24 underground caverns (total capacity 5.6 Mm3)
- Largest harbor in Finland in volume terms (draft 15.3 meters)
- Own truck and rail terminals
- Own power generation facilities for steam and electricity
- Connected to national natural gas network
- Very close and tight cooperation with Neste Jacobs and R&D
- Certified management systems (ISO 9001, ISO 14001, OHSAS 18001)

Performance Of Our Refineries (Solomon Study 2008)

Porvoo

Net cash margin ($/bbl)

Energy intensity, maintenance

Refinery utilization

Naantali

Refinery utilization

Energy intensity, net cash margin

Maintenance

Targets:

Porvoo

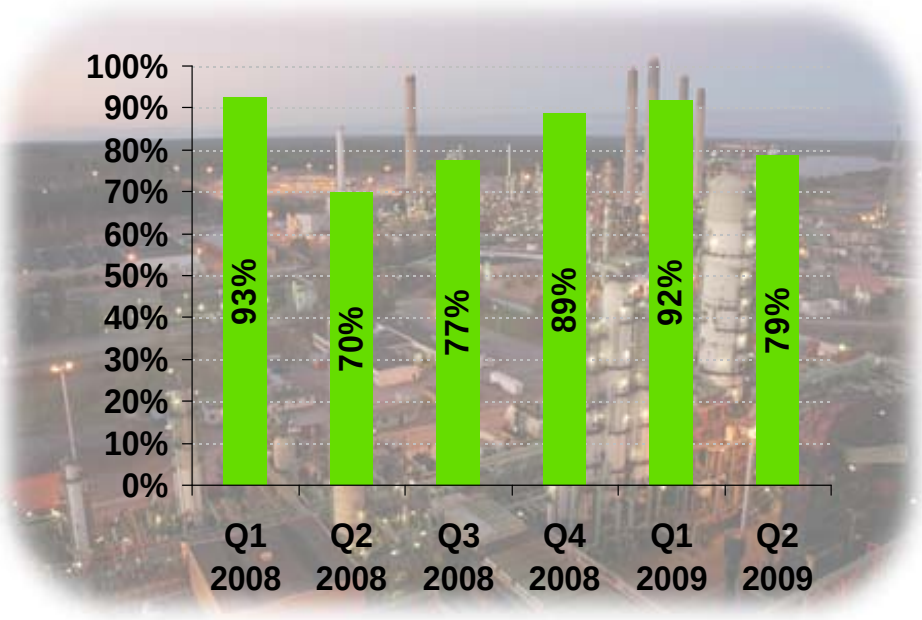
To rank top among Western European refineries in all aspects by 2012

Naantali

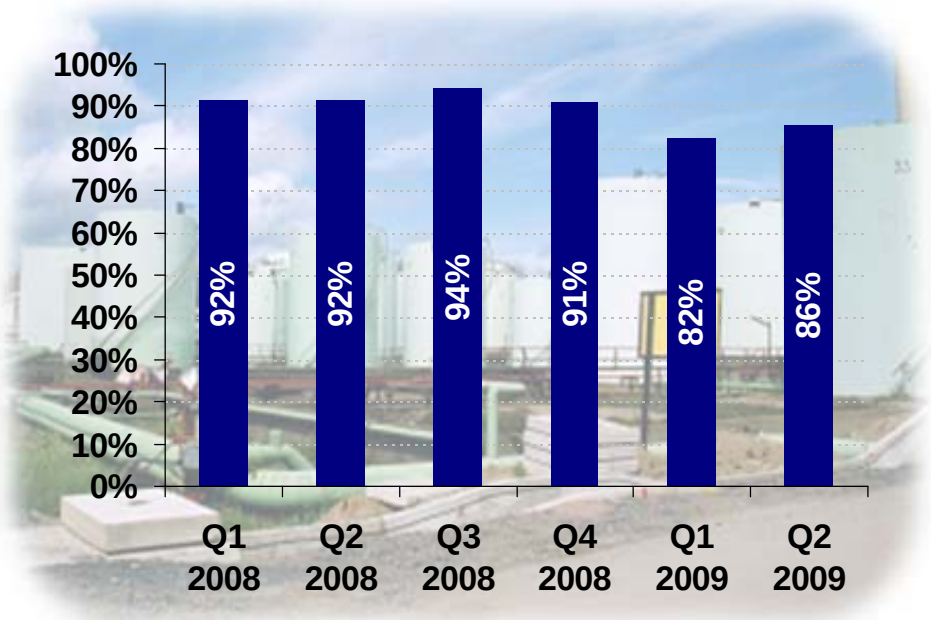
To improve maintenance efficiency performance

Refinery Capacity Utilization

Porvoo



Naantali



- **Porvoo: Challenges on PL4 reflected in low utilization**
- **Naantali's performance has been stable**
- **Porvoo will improve its utilization rate by implementing PL4 development program and carrying out major turnaround in April 2010**

Note: Utilization calculations are based on Solomon methodology

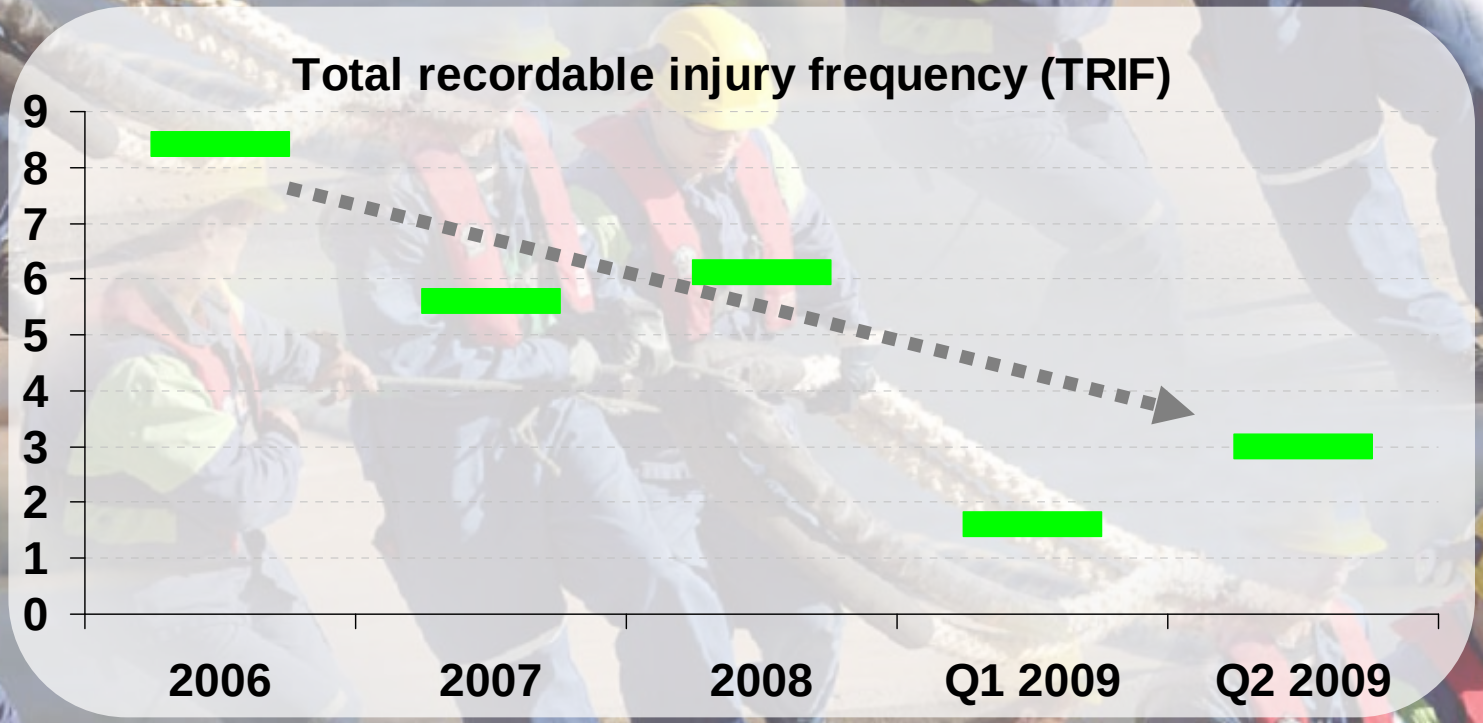
Update On Production Line 4 (diesel line)

- Challenges in operational and safety-related issues during the last couple of years have led to
  - Lower-than-expected utilization rate
  - Additional maintenance costs
- Development plan for the unit includes several investigations and corrective actions and is designed to:
  - Stabilize operations
  - Optimize performance
- Dedicated personnel will focus only on performance improvement
- The line is now operating normally

Experience Of NExBTL Technology

- The first commercial renewable diesel plant based on our proprietary NExBTL technology was started up in summer 2007
  - Some technical and operational challenges were faced and mitigated
  - The first plant will continue to have a pilot plant role
- The second NExBTL plant was started up in July 2009
  - The commissioning and start-up was carried out successfully without a single malfunction or delay
- The expansion of pretreatment capacity will be completed by the end of October
- Both units are running steadily and have even exceeded their design parameters

Work Continues To Enhance Safety Performance



- Major annual improvement since early 2000
- Target is zero accidents

TRIF = total recordable injury frequency (number of cases per million hours worked)


refining the future
NESTE OIL