



Mažeikių Nafta is on the path to improve efficiency

PKN ORLEN Investors & Analysts Day

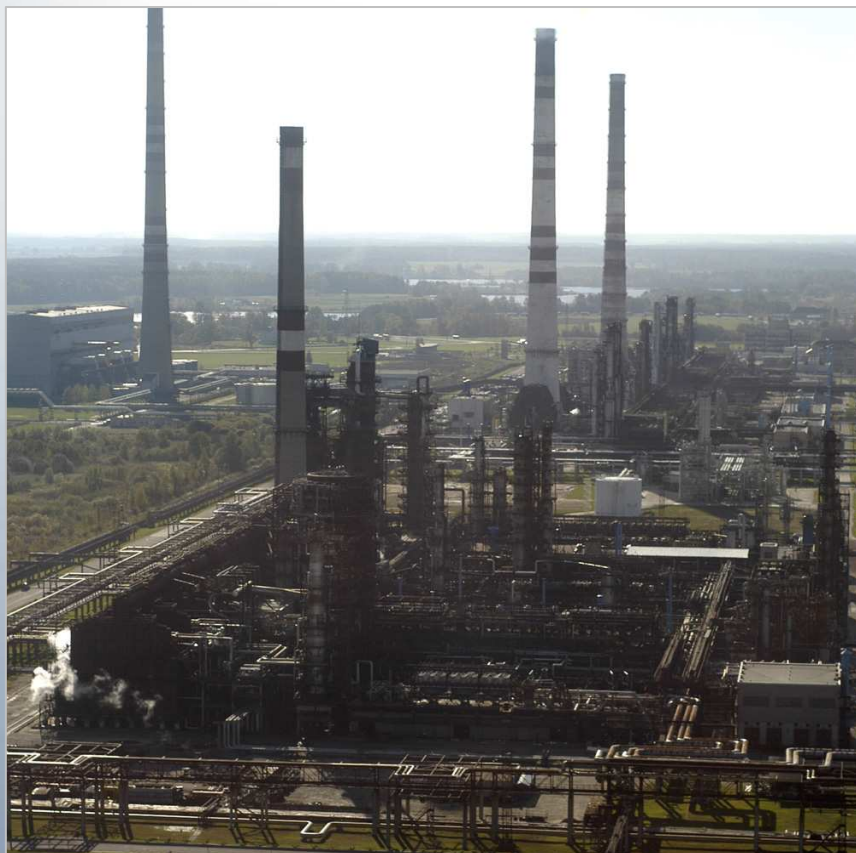
Marek Mroczkowski, General Director

Warsaw June 18, 2008

The only refinery in the Baltic States

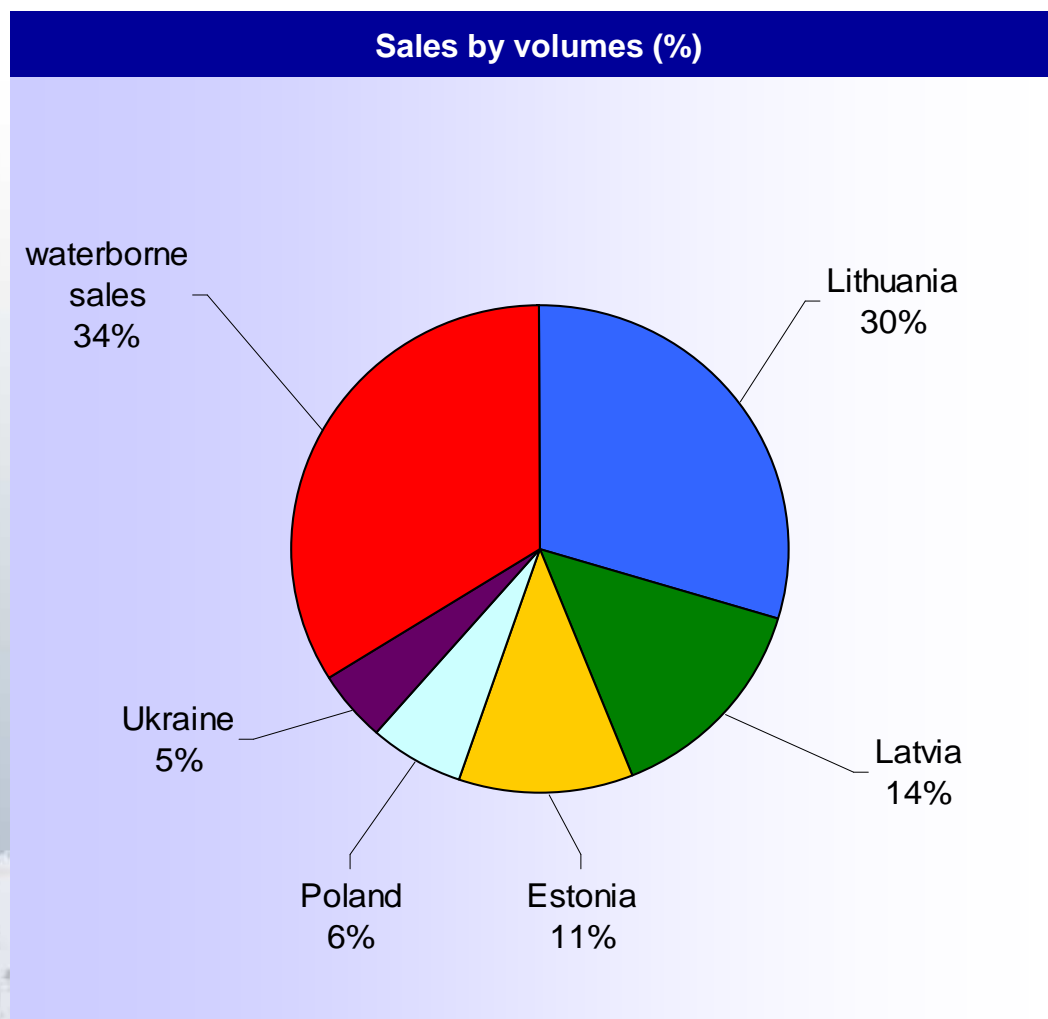


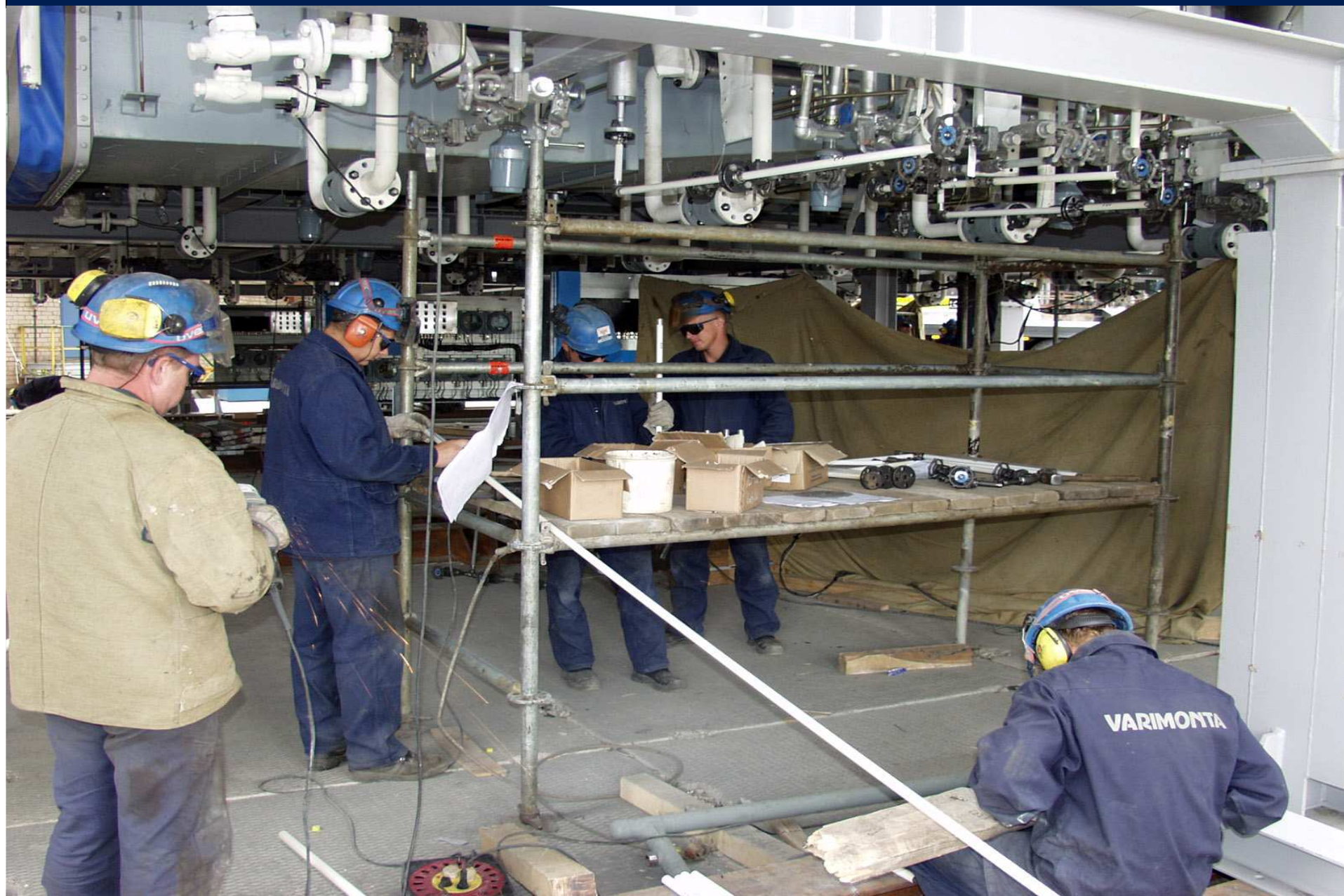
Mažeikių Nafta in 2007 – key numbers



- **5.8 million tons of feedstock processed to produce:**
 - **1.7 mt of gasolines**
 - **1.9 mt of diesel fuel**
 - **0.15 mt of Jet fuel**
 - **0.29 mt of LPG**
 - **1.2 mt of fuel oil**
 - **94 tt of bitumen**
- **Over. 3,700 employees in Mažeikių Nafta Group**

Mažeikių Nafta sales in 2007





Recent important undertaking of Mažeikių Nafta

- **Completion of the largest turnaround in Mažeikių Nafta history, autumn 2007:**
 - More than 4,000 specialists of 80 contractor organizations from 15 countries arrived at the Refinery.
 - 1.8 million man-hours were spent for the turnaround.
 - Completed scope of work was three times bigger than the scope of the turnaround performed in 2003.
 - Maintenance and repairs of more than 600 major pieces of equipment: 175 heat exchangers, 64 towers, 16 reactors, 32 substations, 17 pumps.
 - Replacement of 600 pipelines.
 - Total cost related amounted to 85 mln USD.

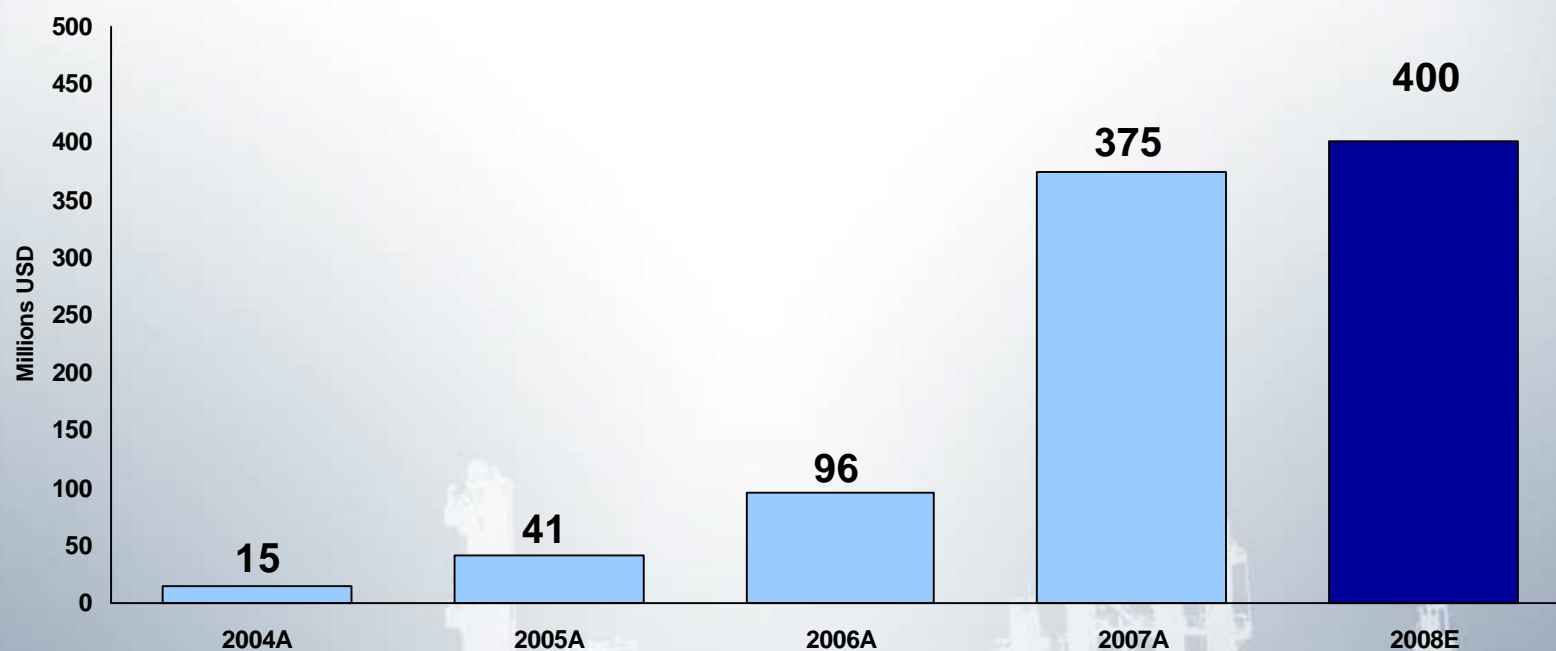


Recent important undertaking of Mažeikių Nafta

- **Rebuilt of the Vacuum Distillation Unit:**
 - Rebuilding of the Vacuum Distillation Unit started in February 2007 after the removal of the fire-damaged tower.
 - Lithuanian, Polish and Italian engineering and construction companies performed most of the rebuilding work.
 - The major components of the unit were produced also in Russia, Ukraine and the Czech Republic.
 - Rebuilding of the unit completed in December 2007.
 - Total expenditure amounted to 151 mln USD (2007-2008).

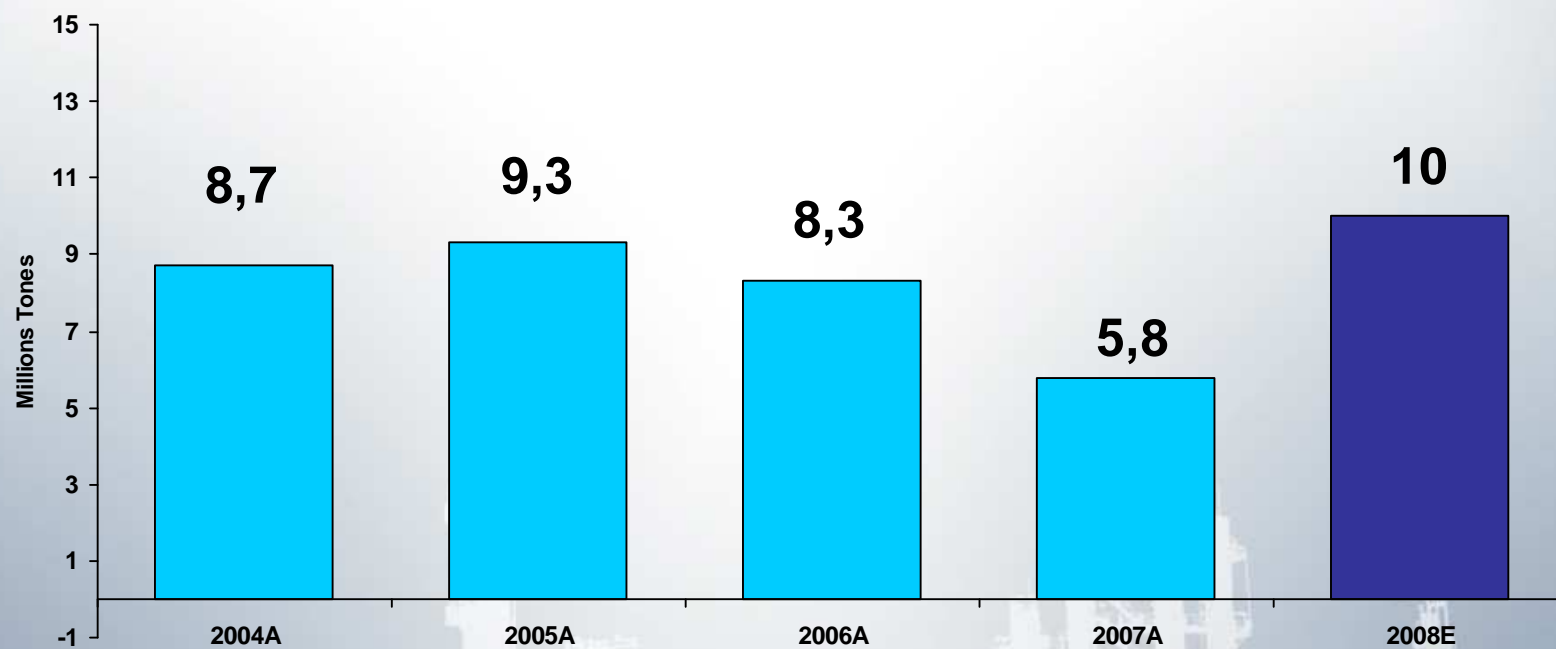


Mažeikių Nafta investments



Total investments planned after acquisition by PKN Orlen 1.6 bln USD

Mažeikių Nafta feedstock processed



Mažeikių Nafta Efficiency Improvements

Key activity	Key value creation levers
Refining	<ul style="list-style-type: none">• Increase white product yield• Improve energy performance• Optimise operating costs of the refinery
Wholesale and Logistics	<ul style="list-style-type: none">• Improve wholesale margin• Optimise products logistics• Optimise other wholesale and logistics operating costs
Corporate and Other	<ul style="list-style-type: none">• Optimise purchasing spend• Optimise other operating costs at Mažeikių Nafta• Introduce operational improvements in planning, coordination and performance reviews

Refining Efficiency Improvement

Key value creation levers	Initiative examples
Increase product yield	<ul style="list-style-type: none">• Recover hydrogen and LPG flare gas• Control automatic level for separator in PENEX unit• Convert heavy viscous residue into sellable emulsion• Improve information system of material flows• Supply heavy visbreaker diesel to FCC unit
Improve energy performance	<ul style="list-style-type: none">• Increase process condensate temperature• Reduce fuel consumption heaters (by 8kg/ton of feed)• Supply gas condensate from the refinery to power plant for burning• Install rotation speed regulators for air coolers and water pumps• Reduce pressure at gasoline reformers• Insulate and heat of off-spec product lines
Other	<ul style="list-style-type: none">• Reduce maintenance costs by introducing scope challenge• Optimise cost of external contractors• Reduce laboratory costs• Implement DCS/ESD control systems

Efficiency Improvement in wholesale and logistics

Key value creation levers	Initiative examples
Improve wholesale margin	<ul style="list-style-type: none">• Increase diesel and LPG sales to Poland• Increase bitumen sales to Estonia• Establish own trading activities for waterborne sales• Increase sales to end-users in the Baltic States• Improve pricing procedures in the Baltic States
Reduce product delivery costs	<ul style="list-style-type: none">• Optimise rail routes in the Baltic States• Optimise port fees• Pipeline to the sea
Other	<ul style="list-style-type: none">• Optimise Butinge terminal OPEX• Optimise pipelines OPEX (Biržai)• Optimize common wholesale and logistic operation

Efficiency Improvement in corporate and other

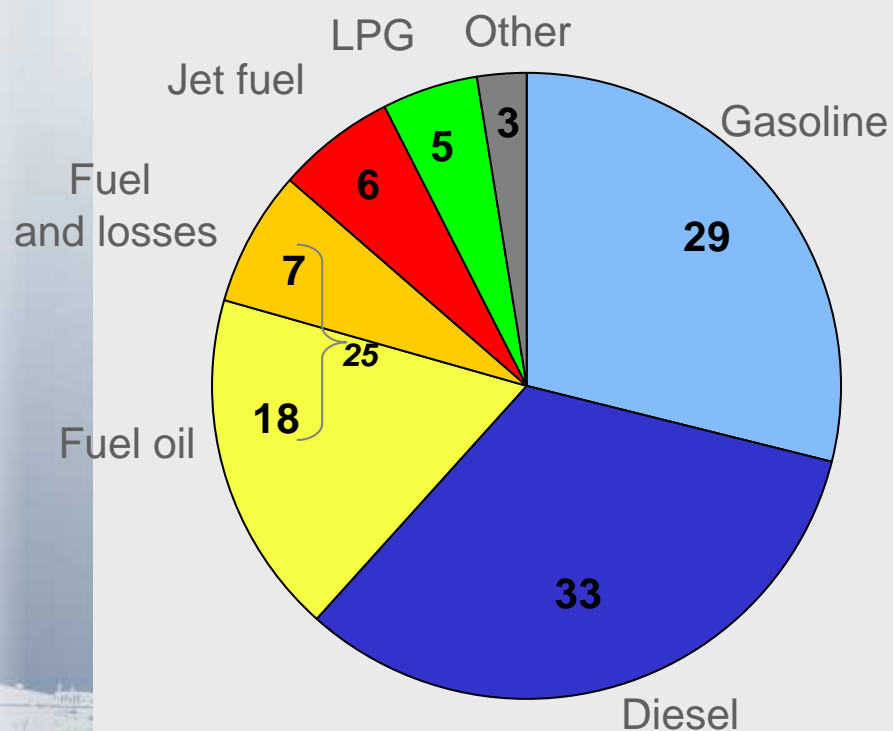
Key value creation levers	Initiative examples
Optimise purchasing spend	<ul style="list-style-type: none">• Optimise chemicals purchasing• Optimise indirect purchasing• Optimise maintenance materials and services purchase costs• Reduce warehouse costs
Other	<ul style="list-style-type: none">• Reduce insurance fees• Reduce cost of financing

Key New Investments for Mažeikių Nafta

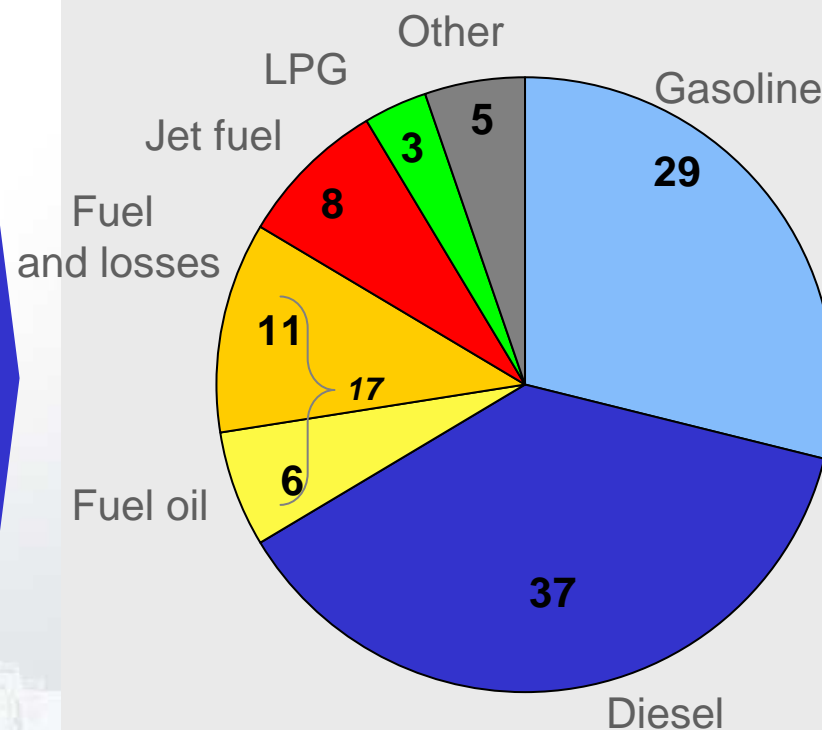
Key value creation projects	Initiative example
Hydrocracking	<ul style="list-style-type: none">• Increase refining conversion ratio up to 88%• Increase the flexibility of the refinery for Diesel versus gasoline production
New H ₂ Plant	<ul style="list-style-type: none">• To meet gasoline and diesel quality specification (EU 2009)
Vacuum Flasher	<ul style="list-style-type: none">• Produce maximum feed for the hydrocracker and increase the efficiency of the crude processing
Propylene Splitter	<ul style="list-style-type: none">• Extract petrochemical feed from the low price LPG produced at the refinery
Other	<ul style="list-style-type: none">• To ensure low sulphur content fuel for power generation and heating plant

Mažeikių Nafta product yield significant improvement following investment

Product yield pre-investment (2006)



Product yield post-investment (2012)



Restructuring and Reorganization at MN

Strategic Directions

Initiated and planned projects

Increasing effectiveness of core activities

- Reorganization of maintenance structure
- Integration of land and seaborne sales organizations
- Investment into production facilities

Outsourcing of non-core activities

- Creation of subsidiary organizations performing support functions:
- Medical service company
- Housekeeping company (catering, cleaning, territory handling)
- Maintenance realization shops

Focus on quality and inter-functional integration

- Implementation of ISO systems:
- 14001 ecological system
- 17001 OHSAS (safety)
- 9001 quality systems

Operational improvements

Area	Initiated and planned activities
Planning	<ul style="list-style-type: none">• Budgets for investment projects developed• Mid term planning process for investments in progress• Ongoing program for inspection and maintenance of Refinery equipment• Preparation activities for next Turnaround
Coordination	<ul style="list-style-type: none">• Supply Chain Management was introduced• Technical Committee was established to improve communication, problem solving and decision making in the area of refinery production, maintenance, investment realization• Investment process defined; support and control of functions and processes introduced
Performance reviews and controlling	<ul style="list-style-type: none">• Regular performance reviews introduced (production and maintenance as well as wholesale and logistics)• Regular investment review meetings introduced, mechanisms for investment spending control introduced• Implementation of IT tools to improve planning and control