Country report Finland

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Finnish economy and industry

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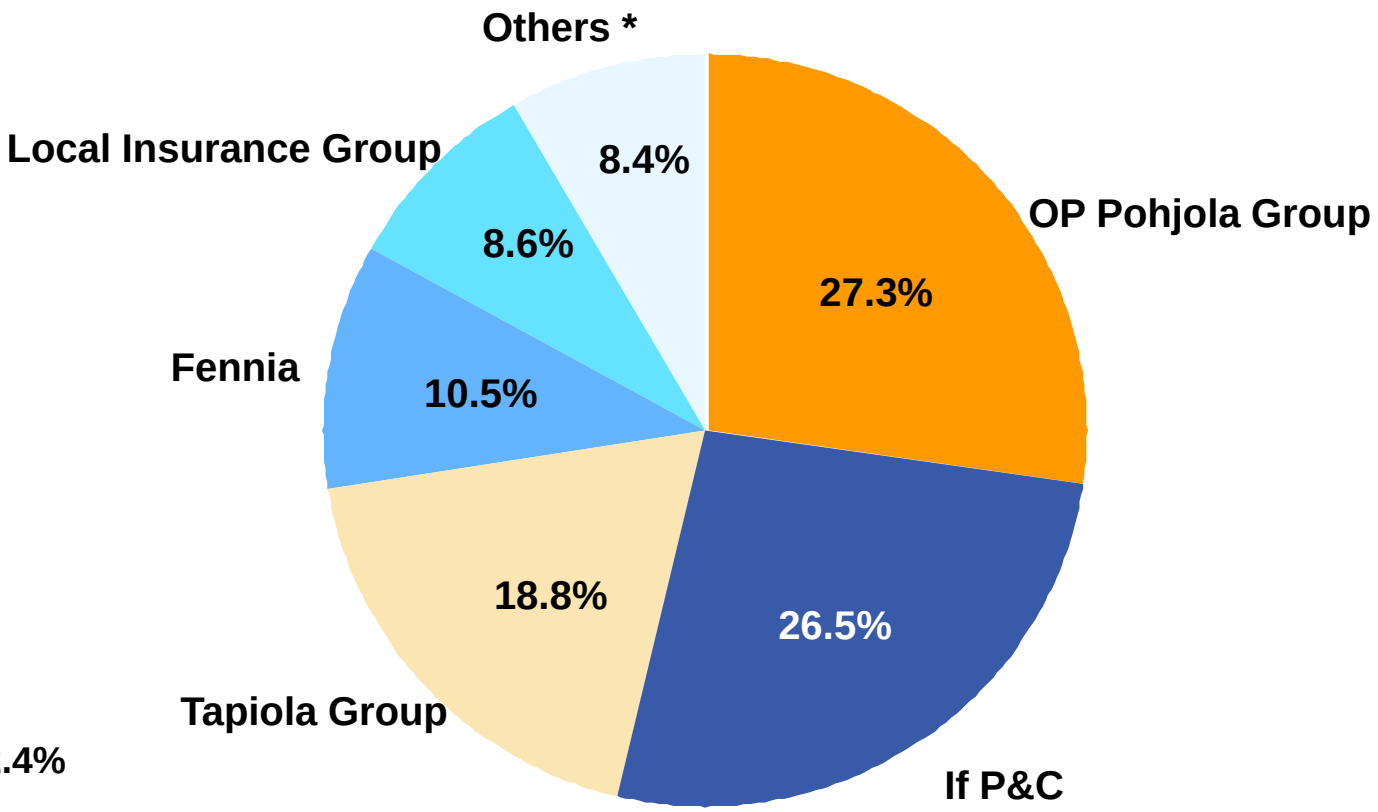
Non-life insurers' market shares in 2007

Gross direct premiums written in Finland total €3.1 billion



***Includes eg:**
Pohjantähti 2.4%
Turva 2.0%
Veritas Non-Life 2.0%

Federation of Finnish Financial Services

Engineering insurance in Finland

Premium development:

- 25.9 M€ (2005); 33,4 M€ (2006); 37.1 M€ (2007)

Loss ratios:

- 45.3% (2005); 72,7% (2006); 69.3% (2007)

Large claims in engineering insurance in Finland

Biggest losses ever in Finland within Engineering insurance:

- Fire at the nuclear power construction site in the1970's
- Major turboset generator damage in the 1980's

Largest claims in 2007

- water induction rub in a steam turbine
- blade failure due to corrosion in a steam turbine

Business outlook on CAR/EAR

Industrial investments by Finnish companies in 2007

- Investments in Finland: 1.9 billion EUR
- Foreign direct investments: 2.3 billion EUR.

Foreign direct investments are made mainly by forest, technology and chemical industry companies.

Half of the foreign investments continued to go to EU countries and North America. The importance of Russia, Asia and Latin America as investments targets is significantly greater than previously.

Investments in Finland: The fifth nuclear power plant; upgrading of power plants; infrastructure projects.

Business outlook on MB

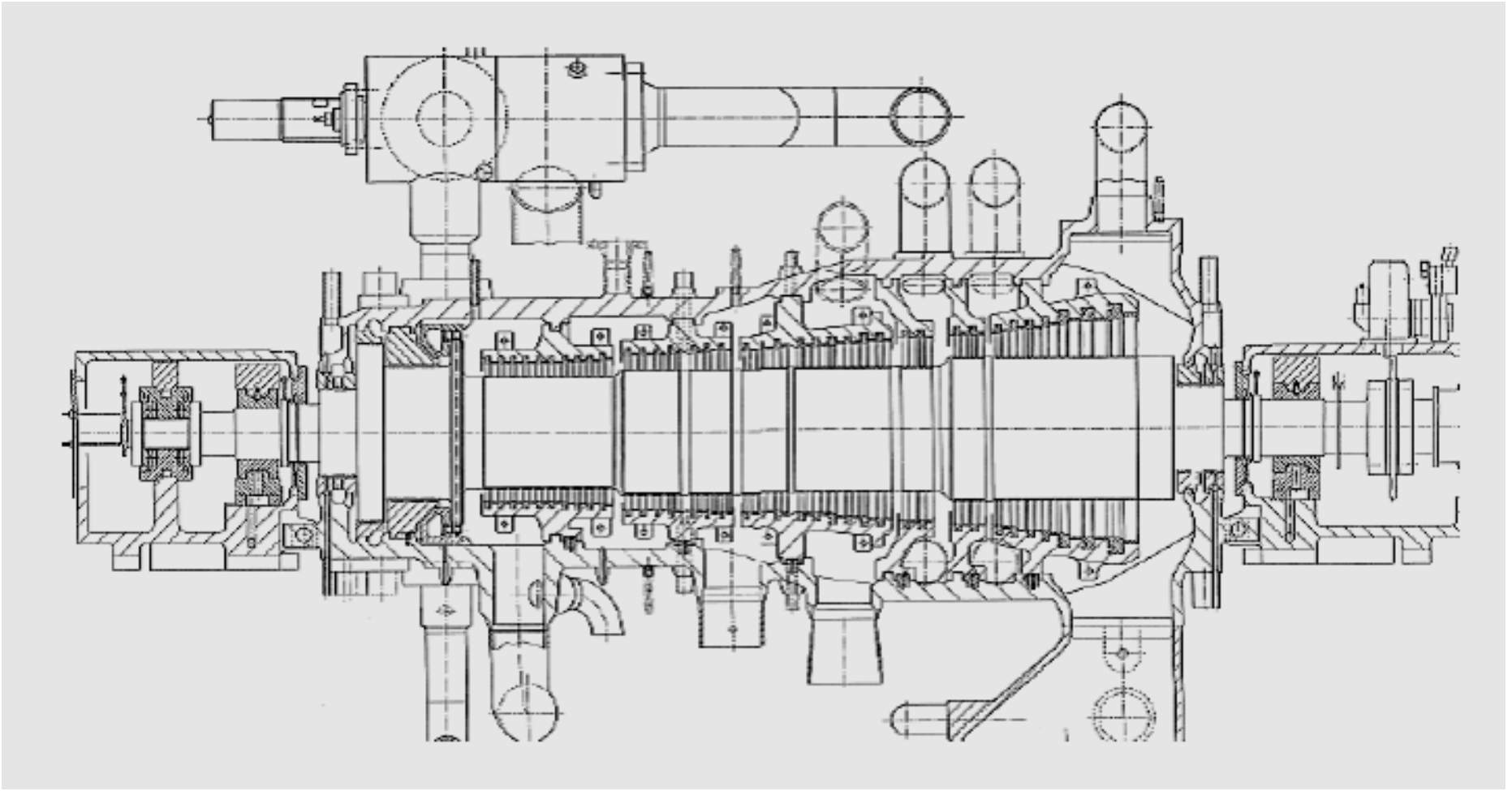
- Preventive maintenance programs well implemented
- Modern machine diagnostics data acquistion and on-line web applications have been taken into use
- New electrical on-line monitoring methods are being standardized and utilized
- Effort on operator training needs to be emphasised

Loss description of a damaged turbine

- The damaged turbine is a 95 MW backpressure turbine
- Endoscopy testing revealed a considerable number of turbine shroudings, blades and sealing strips damaged due to water injection rub compounded by attempts to turn the thermally locked rotor.
- The rubbed areas had a hardness almost double the normal and had to be turned 3..4 mm down.
- The damage occurred during a normal run-up after a short stop. The first attempt to start the turbine failed due to excessive vibration and also a second attempt failed due to excessive vibration.
- The rotor shaft was bent and had to be rectified and post-annealed.

- The cause was partly faulty operation in that the manual draining had been partly neglected or performed on wrong valves.
- Additionally the cause was a faulty design due to the fact that the main steam pipe had a divided loop with only one side temperature instrumented.
- Preventive risk management measures: better schooling, clearer marking of valves, more automatic drainers and an enchanced level of temperature instrumentation of the pipes.

The turbine case:



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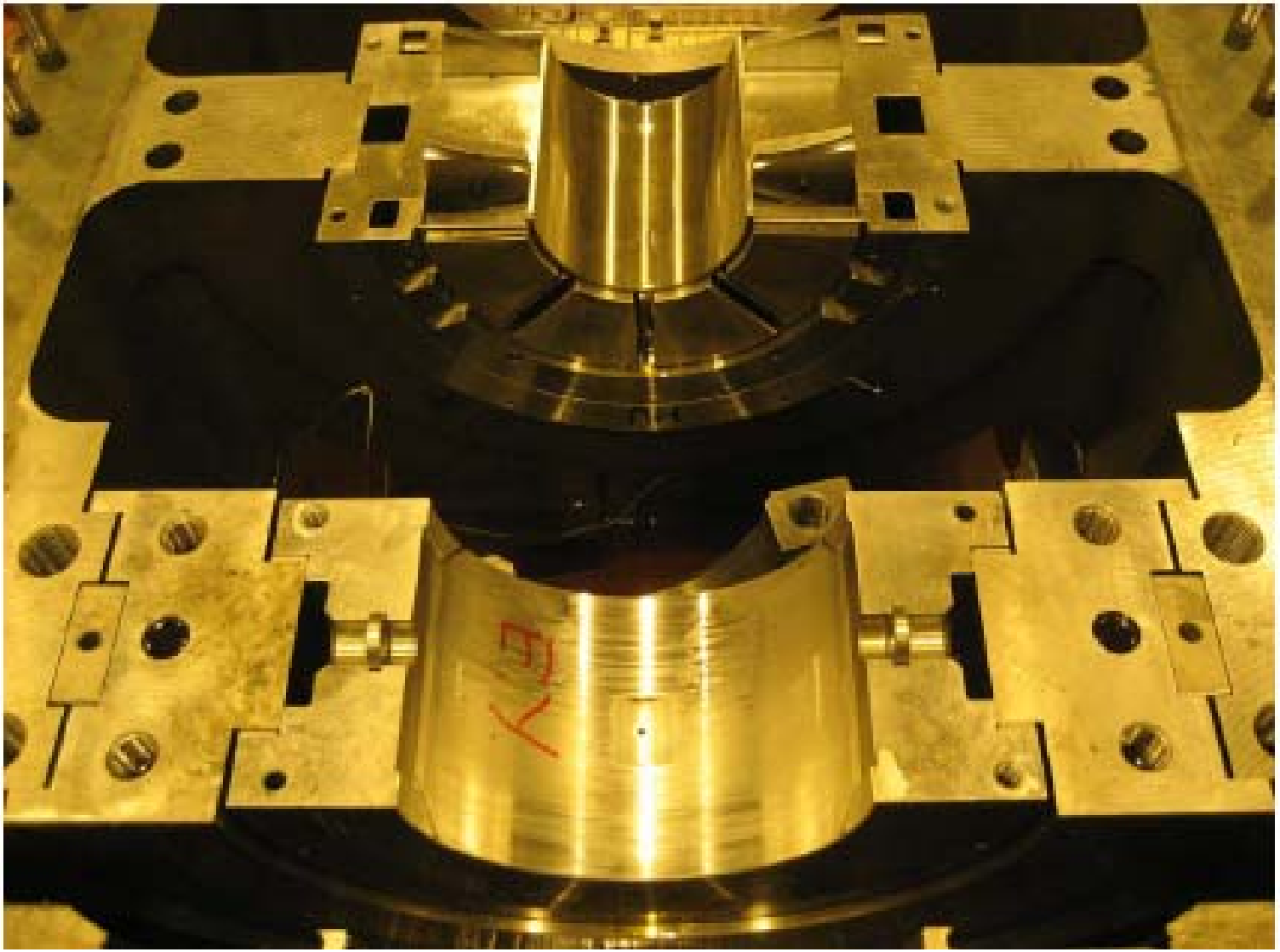

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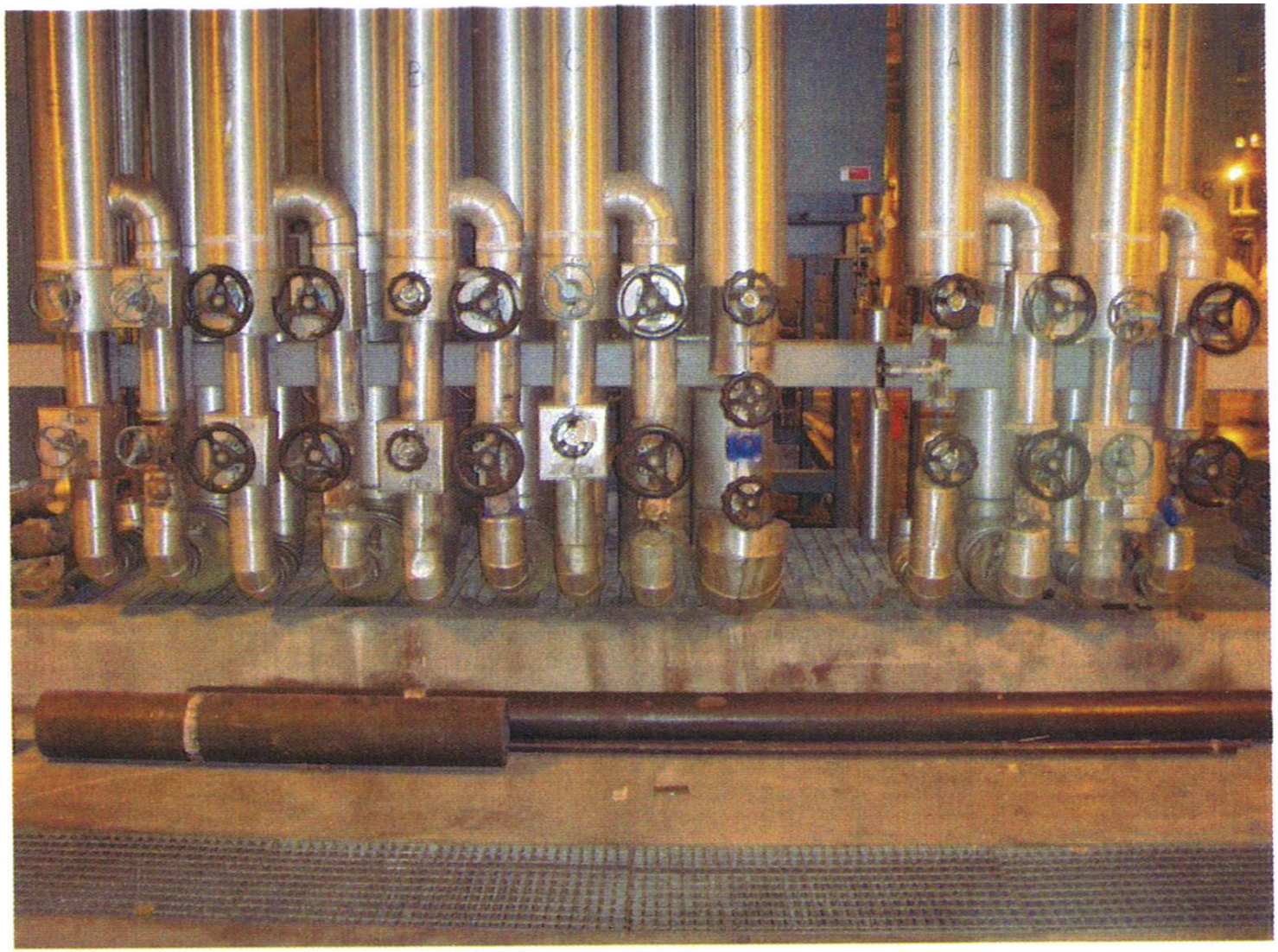

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