

# POWER SYSTEMS

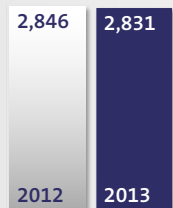
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**John Paterson**  
President – Marine and Industrial Power Systems



## OVERVIEW

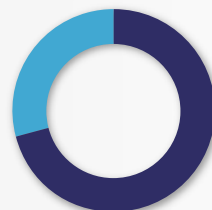
Underlying revenue (£m)



**£2,831m**

Underlying revenue 2013

Revenue mix 2013



● 71% OE revenue  
● 29% Services revenue

Revenue by market sector 2013



● 35% Marine    ● 27% Energy  
● 26% Industrial    ● 12% Defence and other



## Highlights

- MTU Powerpacks ordered for UK Intercity Express Programme
- Fjord Line ordered Bergen engines for cruise ferries
- Upgraded Series 1163 engines introduced
- UK MoD selects MTU gensets alongside MT30 gas turbine
- Polish partnership to be created to supply and maintain cogeneration plants
- Mining trucks powered by MTU delivered to Rio Tinto in Australia

## Rolls-Royce and Daimler AG each has a 50 per cent shareholding in Rolls-Royce Power Systems Holding GmbH.

Power Systems is based in Friedrichshafen in Southern Germany and, together with its worldwide subsidiaries, employs around 11,000 people. It specialises in reciprocating engines, propulsion systems and distributed energy systems. The company previously operated under the name of Tognum AG. In 2013, Bergen Engines AS, including its subsidiaries, was contributed to the business.

### What we do

The product portfolio includes MTU-brand high-speed engines and propulsion systems for ships, for heavy land, rail and defence vehicles, and for the oil and gas industry. Under the MTU Onsite Energy brand, the company markets diesel and gas gensets for applications such as emergency, base load, peak load or cogeneration. Bergen Engines AS manufactures medium-speed engines for marine and power generation applications. L'Orange completes the portfolio, producing fuel injection systems for large engines.

### 2013 financial review

The order book increased 6 per cent, with new orders of £2.7 billion (£2.8 billion in 2012). The final quarter of 2013 saw strong sales, driven by the pre-purchase of engines for industrial, including agricultural, applications ahead of the introduction of tighter environmental standards in Europe. Marine revenue is well supported by demand from navies in Asia and the US. In defence, major programmes to power military tanks provide stability despite continued pressure on government spending. Revenue decreased 0.5 per cent with good growth in the Marine and Industrial divisions offset by lower revenue in oil and gas, medium-speed engines and lower aftermarket sales. Profit increased 0.3 per cent, reflecting a strong second half.

## Key financial data

	2012	2013	Change
Order book £m	1,823	1,927	+5.7%
Underlying revenue £m	2,846	2,831	-0.5%
Underlying OE revenue £m	1,938	2,004	+3.4%
Underlying services revenue £m	908	827	-8.9%
Underlying profit before financing £m	293	294	+0.3%

The table above shows a trading comparison as if both Tognum and Bergen Engines had been fully consolidated in 2012 as well as in 2013.

In 2014, we expect modest growth in revenue and good growth in profit driven by growth in marine and land power systems markets.

### How we are performing

2013 proved a challenging year. Headwinds confronting the business included the Eurozone crisis, US fiscal challenges and slowing of growth in emerging countries. General nervousness about the global economic environment led to constrained order activity within the market.

Despite these adverse market conditions, a number of significant orders and contracts were achieved.

As outlined in the Marine segment review, Power Systems also benefited from contracts awarded by Chinese customer COSCO and from the UK MoD for the generator sets of the Royal Navy's future Type 26 Frigate. The Type 26 propulsion system will consist of a combination of four MTU diesel gensets and a Rolls-Royce MT30 gas turbine. These examples highlight the synergies and benefits of complementary product portfolios.

MTU introduced the upgraded Series 1163 marine engines for IMO Tier II and IMO Tier III emission standards. These are cleaner and more fuel-efficient than the previous generation and offer a better power-to-weight ratio.

For the British Intercity Express Programme, MTU received orders of rail Powerpacks with Series 1600 engines. The Powerpacks will drive Hitachi's future high-speed trains which are scheduled to go into service from 2017 on Great Western Main Line and East Coast Main Line routes. Twenty locomotives built by Chinese manufacturer, Dalian Locomotive & Rolling Stock and powered by MTU engines went into service in Argentina.

China-based Xiangtan Electric Manufacturing Corporation shipped its first ever export of mine dump trucks to the Pilbara mine site in Australia for Rio Tinto. Each of the 230 metric-ton trucks is powered by an MTU mining engine.

The Fjord Line shipping company ordered Bergen gas-powered engines. Its Stavangerfjord and Bergensfjord cruise ferries, both 170 metres long, are each to be equipped with four Bergen B-gas engines. The engines ensure that these ships already meet future IMO Tier III limits as well as satisfying mandatory EU regulations projected for 2015, for sulphur emissions from ferries.

In addition to these contract wins, we continue to build capacity through joint ventures and partnerships. L'Orange has established a consortium with Hoerbiger, for the supply of equipment for large-scale diesel and dual-fuel engines for the Asian market. Onsite Energy and regional Polish energy supplier Kogeneracja Zachód intend to form a partnership for the supply and maintenance of cogeneration plants. Over the coming years, both companies plan on working exclusively with each other to supply small- to medium-sized Polish cities with environmentally-friendly energy from CHP plants.

### Future priorities and opportunities

Our long-term growth relies on five pillars: power; propulsion; services; regional expansion and, the product portfolio.

In 2014, we expect most markets to stabilise, although some segments are expected to remain difficult. This leads us to expect continued volatility in revenues. Overall we expect to see a positive performance primarily driven by marine applications.

We will invest in future technologies to maintain our technological leadership. We are configuring our different engine series to meet tougher emission standards. At the same time we will improve efficiency and keep a focus on costs and cash in all other areas.

**Market outlook:** We estimate the total market opportunity for high-speed engine original equipment over the next ten years to be €280 billion. *The forecast data is taken from a range of sources including: Global Insight; Oxford Economics, Diesel and Gas Turbine Worldwide, Clarkson Research and our own internal forecasting tools.*