



## Alkylation plant in Portugal upgrades safety system

Industrial optimization specialist Optieng provides HIMA safety system to Petrogal's Sines Refinery

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An advanced safety system that meets the latest technical requirements and IEC 61511 and IEC 61508 protocols has been installed to protect the alkylation unit at Portugal's Sines Refinery, an asset of Petrogal S.A.. Petrogal is a company in the Galp Energia Group, an oil and natural gas integrated operator.

Engineered and configured for the Sines Refinery by Optieng, a specialist in industrial optimization projects, the HIQuad safety system from HIMA meets SIL 3 requirements and the standards and specifications of Galp Energia.

The Sines Refinery, located in the port city of Sines, is one of the largest refineries in Europe, with an annual processing capacity of 10.8mt. The refinery's alkylation unit produces an alkylated gasoline component, the result of a reaction between isobutene and butylene, with hydrofluoric acid as a catalyzer.

Optieng supported the project through pre-engineering, development and configuration, installation, commissioning and start-up, functional tests and training.

HIQuad H41q/H51q systems are the established standard for safe and economical solutions in the processing industry. The systems are ideal for small and mid-size safety-critical applications that require high levels of process availability.

### **About Optieng**

Founded in 2007 by Carlos Gomes da Costa and João Lobato, Optieng helps industrial businesses identify and optimize their production processes. The company provides solutions and equipment from internationally recognized suppliers. Optieng has offices in Portugal and Spain.

### **About HIMA**

HIMA is the world's leading specialist for safety-related automation solutions. HIMA solutions provide maximum safety and maximum availability and can be integrated into any automation environment. During the past 45 years, more than 35,000 HIMA systems have been installed in over 80 countries to protect the equipment of the world's largest companies in the oil, gas, chemicals, pharmaceuticals and power generation industries. In the fields of rail, logistics and machine safety, HIMA solutions are leading the way to increased safety and profitability. The HIMA LIFECYCLE SERVICES concept gives customers an overview of all the requirements of "functional safety" allowing them to always make the right decision at the appropriate time.

For more information about HIMA, please visit: [www.hima.com](http://www.hima.com)



**Caption:**

A shutdown of Petrogal's alkylation unit at Sines Refinery was the perfect opportunity for engineering and consulting company Optieng to install a new HIQuad safety system. Source: Optieng

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