Analysing financial news to help companies manage their investments

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A risk assessment measurement system drawing on data from financial news feeds is in a testing phase with end users such as private investment banks, investment funds and pension funds.

With the help of funding from the EU's Eurostars Programme to encourage research and development by SMEs, a consortium of 3 medium-sized businesses from 3 EU countries has together developed the NORM system, which automatically analyses financial news and helps companies manage risk in their investment portfolios.

"The results from the NORM project were good because integrating event-based risk fund managers can predict the value more precisely then today's risk models and so we have moved to a new phase of building new evaluation products for customers," says Bram Stalknecht,

the Chief Executive Officer of Dutch SME Semlab, which led the project.

Companies can already draw on risk models for equities that look at historical share price data to predict future return on investment, including Value at Risk (VaR), which is widely used to measure the risk of loss on a specific portfolio of financial assets. However, up until now, none incorporated data from financial news feeds such as Dow Jones or Reuters.

Automatic analysis of news events

A new demonstrator application developed by the three SMEs automatically analyses news events. The viewer shows the live VaR and price development of the 50 leading equities (Euro Stoxx 50) of the eurozone. "The news impact stating that company A has taken over company B is one possibility of what the application can generate," says Barry Nouwt, Artificial Intelligence Developer at the Dutch SME Semlab.

Semlab's contribution to the project was to provide semantic technology that scans financial news feeds and picks out the relevant data. The Fraunhofer Institute for Industrial Mathematics provided the statistical model that builds news from the financial markets into a description of likely returns on investment of particular equities. UK company OptiRisk's provided the platform bringing together Fraunhofer's statistical model and Semlab's data output.

"The project allowed our company to improve its semantic technology for financial news and VaR, which are areas in which it is already active. Through NORM, we wanted to improve the results of our system and we now have 95% to 99% accuracy. If a company has defined the information it is looking for correctly, the system is almost certain to

find it. The project also allowed Semlab to come up with a new application for its Viewerpro technology as companies need this technology to read the news," says Mr Nouwt.

"One of the causes of the financial crisis that began in the mid-2000s was that VaR calculations were not correct," says Mr Nouwt. "The tests we have run have shown that NORM is a better predictor of risk than traditional VaR measurements."

The project has also opened up a new area of work, news analysis, for the Fraunhofer Institute. "The three partners aren't working together actively at the moment but we intend to continue our cooperation in the field of news analysis. We're considering organising a workshop about the demonstrator application," said Bernhard Kuebler, a Scientific Associate at the Fraunhofer Institute.

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