

The family-owned Schwinger Granit quarry at Nittenau, Regensburg produces some 1 million tonnes of material each year

German market is stability 'anchor'

Companies involved in Germany's aggregates industry, Europe's largest, are looking to 2016 with optimism. **Patrick Smith** reports.

Germany is Europe's largest producer of aggregates with an annual demand of 500 million tonnes of gravel, sand, silica sand and natural stone products.

The industry has in the region of 1,600 companies with approximately 3,200 plants and 27,000 employees, and its main customers are contractors and construction materials producers. However, other sectors of the German economy from IT hardware production to pharmaceutical industries also rely on mineral resources producers.

According to MIRO, Germany's Aggregates Federation, Germany's Aggregates Federation, the country has sufficient reserves of mineral raw materials and, particularly in terms of construction, does not need to import materials. It is estimated that the annual demand for quarry materials will remain the same until 2030.

The expanded MIRO, a single voice for the German aggregates industry, was created in July, 2011, when the organisation merged with BKS, the German Sand and Gravel Association.

In its 2013-14 annual report, MIRO says the fact that demand from domestic sources for aggregates often involves travelling short distances is a major economic advantage. It is also an ecological advantage as the demand for raw materials in a particular region can be met by production in that region, with rock companies producing only what is necessary.

According to calculations by the Federal Institute for Geosciences and Natural Resources (BGR) and the German Mineral Resources Agency (DERA) the extraction of minerals annually takes up "barely 0.004% of the used total area of Germany. And, unlike many other types of land use is the extraction of raw materials is only a temporary requirement."

MIRO points out that after completion of the extraction, there are a number of uses to which quarries can be put. In many cases the decision will be in favour of conservation.

"Thus, in the past 15 years, backed by professional support, more than 3,000 hectares of former mining areas, mainly

inspired by nature, have been re-integrated into the landscape. Also numerous charming recreation areas owe their creation to the former extraction of raw materials."

The organisation says that today the extraction of raw materials from stone quarries and gravel pits no longer has anything to do with the shovel and hammer-breaking job of former times.

Now companies are using high-tech extraction and treatment methods with geophysics, GPS, intelligent machines and plant control, and largely automated processes to deal with shipment and invoicing.

Major manufacturers of quarrying equipment such as crushing and screening equipment; wheeled loaders and dump trucks, are already well established in the market, and a good example of this can be seen at the Schwinger Granit quarry at Nittenau, Regensburg, south-east Germany (see report next issue).

The family-owned quarry produces 1 million tonnes of material each year, and employs a big fleet of Caterpillar excavators, wheeled loaders, dump truck and material handling equipment. It employs sophisticated methods to reduce fuel consumption and increase productivity.

Atlas Copco equipment is used during the blasting process while Sandvik and Metso crushers are among equipment used during the crushing and screening process.

"We do a lot of monitoring

using Caterpillar's VisionLink and we look at the results every day. If weekly targets are achieved, our team gets a special dinner as an incentive," says Jörg Schwinger, director.

Another company, Feess Urdbau, is one of the major C&D waste recycling companies in the Stuttgart region of Germany. Its Kirchheim plant is involved in the CANDY (CompAct, highly mobile, Next generation, CD&E waste recoverY system) project, a partnership between CDE Global, Feess and the Eco-Innovation Fund from the European Union.

Recycling a variety of products, including aggregates, sand and railway ballast, the site uses developments from CDE which include the feed arrangement to the plant; enhanced mobility; reduced plant footprint; improved maintenance access, and developments at the sludge management stage of the process. These were seen at the company's recent Open Days Event at the site, where the CDE plant has been operating for the last 18 months.

However, notes of both optimism and caution are sounded in the latest report from the VDMA, the Association for Construction Equipment and Building Material Machines.

German construction equipment manufacturers are more optimistic at the mid-point of the year than they were at the beginning, "even though uncertainty is the largest obstacle for us at present," says Johann Sailer, chairman of the VDMA.

In its latest report, the