Relationship building is key to success

MEGAN WAIT | FEATURES REPORTER

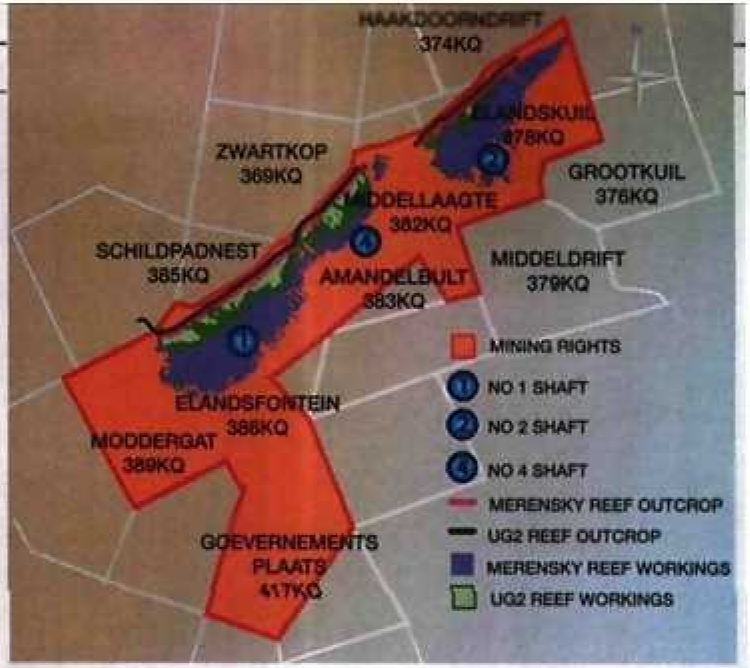
Engineering, procurement and construction management (EPCM) firm Hatch reports that it currently has projects under way for 15 of the largest metals companies in the world. One of these projects involves Hatch providing its EPCM services for the brownfield expansion of primary platinum producer Anglo Platinum's (Angloplat's) Rustenburg base metals refinery (RBMR) to increase the output of nickel cathode from 21 000 t/y to 33 000 t/y.

Angloplat's RBMR expansion will feature a fully automated nickel electrowinning tankhouse and detailed design of this component is being undertaken in Santiago, Chile, while the project management and detailed design for the rest of the project are being completed mainly in South Africa, with assistance from its São Paulo office.

Further, Hatch has been retained by Angloplat to provide the EPCM resources for the implementation of the No 4 Shaft complex at the platinum-rich Amandelbult mine, in South Africa. The project comprises four vertical shafts and a mining facility able to produce and hoist 250 000 t/m of ore. The company is working in close collaboration with Angloplat's technical department to provide the engineering component of the scope and production ramp-up is expected to start in 2015 and reach its steady-state condition in 2019.

The company says that it is not only a project house, but is also client orientated in that it develops relationships in the energy, infrastructure and mining and metals sectors. The company's principal portfolios include mining and metals, infrastructure and energy, of which metals remains the dominant portfolio.

Most of the company's clients in the global mining, metallurgical, infrastructure and energy sectors are long-term users of its business and process consulting,



AMANDELBULT
Hatch has provided the EPCM services for Anglo Platinum's mine

design, project and construction management, technologies, commissioning and in-house operations services.

Another project in which Hatch had been closely involved is mining group Rio Tinto's 80%-owned company QIT Madagascar Minerals' ilmenite project, in Madagascar.

The completed project involved the development of the mining and processing operations of a minerals sands deposit at Fort Dauphin, in the southern region of Madagascar. The scope of services also included a feasibility study for a mineral sands mining and processing facility, including the related infrastructure.

As a result of the work completed on the project, Hatch received three awards, the Bentley Systems 2009 Be Inspired award in the category of Innovation in Mining and Metals; first place in the South African Institute of Steel Construction Awards export category; and a safety award from Rio Tinto.

Further, Hatch has also been partly involved, alongside jointly owned Korean steelmaker Posco's Societé du nickel de Nouvelle-Calédonie et Coreé, in the construction and start-up of Korea's first ferronickel smelter. The smelter will produce 300 000 t/y of nickel to be used in steelmaker Iron & Steel Company's stainless steel production.

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Meanwhile, the international company has also been retained by iron-ore producer Iron Ore Company, of Canada, to pursue a continuous improvement study (CIS) for increasing the production capacity of the pellet plant in Labrador City, Newfoundland and Labrador, in Canada.

The aim of the study is to help increase pellet plant production to the maximum sustainable capacity while decreasing the production rate gap between the pellet grade of the limestone and float products. Production is planned to be increased from 13-million tons a year to 14,5-million tons a year.

The pellet plant can be separated into seven sections: ball mills for regrinding, thickeners, flotation, filtering and balling, induration, a screenhouse and a load-out. The multistep capacity increase will debottleneck and improve each of the pellet plant sectors, starting from its base production level to increase equipment efficiency. If required, additional capacity will be implemented.

Hatch Montreal will undertake the assignment. Phase 4 of the CIS work was scheduled for completion in December 2009. Other phases of the CIS work will continue through 2010 as requested by the client.

Meanwhile, the company also reports that its environment and community interface business practice is committed to finding new ways of embracing sustainability.

Hatch regional director Africa: environment and community interface **Max Clark** says that the company has developed a suite of tools and methodologies to help clients develop strategies for sustainable projects.

"One of the concerns that arises in the sustainable development (SD) arena is measurement. Productivity and financials can be measured and project costs calculated with a fair degree of accuracy and, while energy savings and water consumption can be measured, how do we measure the positive impact on a site, or changed human behaviour?"

To meet the challenges of establishing sustainable development in companies, the Hatch approach involves all stakeholders at the start of a project. Hatch regional practice leader: sustainable development and design **Maurizio Finucci** explains that it begins with the company asking the client to specify the corporate SD aims.

"We then define how the project will add to the objectives. We look at the project location to understand the key environmental and social drivers. For example, in some areas water is the biggest issue, while, in others, it's energy," he says.

Once the aims and their measures are defined, the key project players attend a facilitated workshop to identify and prioritise SD ideas. "To ensure that we find the right solutions, every area is represented, including financial and business management, technical staff and staff involved in the environmental issues," Finucci explains.

The resulting project overview enables Hatch and the client's team to highlight all environmental and social sensitivities and tackle them in the development process. "We ask everyone to think outside the box, as we look for opportunities to marry business and environmental benefits. SD can mean leaving an area better off than we originally found it. Industrial activity can also be used to create other sustainable businesses," he adds.

The Hatch SD approach seeks to find the proper coupling of a project with its environmental and societal structures. At the heart of the Hatch approach to proper coupling is the concept of context, drivers and connections (CDC).

"Owing to the complex nature of human interactions with the environment, the circumstances of each project are unique and everything is context specific, so understanding that context is a vital first step. Each stakeholder within the context has different drivers, which must be identified. Only then can you create the connections that empower the process," says Clark.

By using the CDC approach, Hatch believes that industrial projects can integrate SD concepts easily and generate value in a number of ways. Clark explains that while fiscal value is the most common way of organising and designing projects, further value can also be unlocked. An example of this is the immense value of soil fertility to farmers, where its monetary value is negligible.

Hatch cites work currently under way in Australia as an example of what can be achieved by making use of the SD approach.

The process of implementing sustainable development allows companies to focus on the broader picture, rather than just the project. "In greenfield projects particularly, we can get all players together and ultimately benefit everyone. We need to get away from the economic mindset of 'take the resource, consume it and dispose of it'. However, there is a long way to go – the process involves a great deal of negotiating with your neighbour," Clark concludes.

Everything that exists is, in a manner, the seed of that which will be.

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