

NORTHERN EUROPE.

**5.30 AM. -30 DEGREES.
TIME TO GO TO WORK.
1,240 METRES BELOW
THE EARTH.**



WORKING ON A MAJOR IMPROVEMENT PROJECT AT ONE OF EUROPE BIGGEST MINES, CELERANT CONSULTANT JONI HEINONEN FINDS IT HOTTER DOWN BELOW THAN IT IS ON THE SURFACE.

If you've never been down in a mine before it can be quite a hostile environment at first. It's loud, dark, dusty and the whole place is buzzing. It's like a small city with roads, tunnels and canteens. This one is huge, so there are massive machines everywhere and it has more than 100 workers - production operators, drivers, maintenance personnel, infrastructure people, foremen and the guys that do the prospecting and blasting.

The company has been mining in this region for a long time and it's closely bound up with the local community. People are very proud to work for it and proud of what they do. Natural metal prices are rising too, so it's also a very important company for the Swedish economy.

Striking gold

The rock is rich in zinc, copper, gold, silver and lead and production takes place on every level. Tunnels spread out everywhere and huge trucks carry the rock up to the surface on a big ramp in the middle. The blasting cycle is drill, load, blast and then make the mine safe again. And it repeats like that day and night.

All the rock that's blasted out then gets taken to the mill, where the ore is separated out. But it's still not pure, so after that it goes to the smelters where it's converted into the finished product. Celerant have a team working here and the aim of the project is to help the miners improve every aspect of their operation, particularly the tonnage of ore they mine. They're very experienced professional, so we're learning a lot from them too, because being a team is the only way you can operate down here in the mine.

From 21 blasts a week to 25

One of our main tasks is to lower the machine failure rate. That means the worst performing critical machine should not break down more than once every 30 hours. That's the big target because it supports the overall target of going from 21 blasts a week to 25.

The work these machines do is incredibly tough, so they break down a lot. One critical machine could breakdown every 6 hours. So we need to implement preventative maintenance

and do first line maintenance and have a problem solving team in place to work out why the machine keeps breaking down and what we can do to make sure it doesn't happen again.

That's why we spend a lot of time down in the mine making sure that what we've designed is actually happening. You've got to work with the maintenance teams to find out exactly what's happening on the shop floor. How is first line maintenance doing? Are the operators completing the work they're supposed to? How are we complying with the standard times that we've set for tasks? How are we recording work orders?

Tough men, Tough questions

The mechanics and operators are tough men, you have to be to work in a mine, but they're easy to communicate with. They have a mentality which is very down to earth and honest. So as long as you adjust to their culture and embrace their way of talking, their way of reasoning, it's easy to get on with them.

Most people have worked in the mine for a very long time, so they've got a lot of opinions about what's best for the mine and what's best for the future. That's understandable. If you've been in a mine for 30 years and you've now got Consultants saying perhaps we should do it like this, or plan our cycles like that, you're bound to question things. So we're constantly pushing ownership and responsibility for the project over to the managers, the foremen and so on.

Designing a great strategy on paper is a whole lot easier than actually making things happen on the ground. So a big part of our job is making sure that people are in the right place on the behavioural curve. Right now they're probably thinking this is never going to work and hoping the Consultants will go away soon so they can get back to working the way they used to. But that's because this is one of the most intensive periods in the project.

Maintenance and production work 24 hours a day at the mine and it's the same in the mill. That's 3 shifts, so making sure everyone is at the same point is a big problem, especially now that we're installing these improvements. The managers work during the day so they get all

the information, but it's impossible to get everyone else in the same room at once, so we have to give the same workshops and the same information over and over again to guarantee that everyone understands exactly what where we are in the project and where we're going. It's hard, but very rewarding when you see the results. ■

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