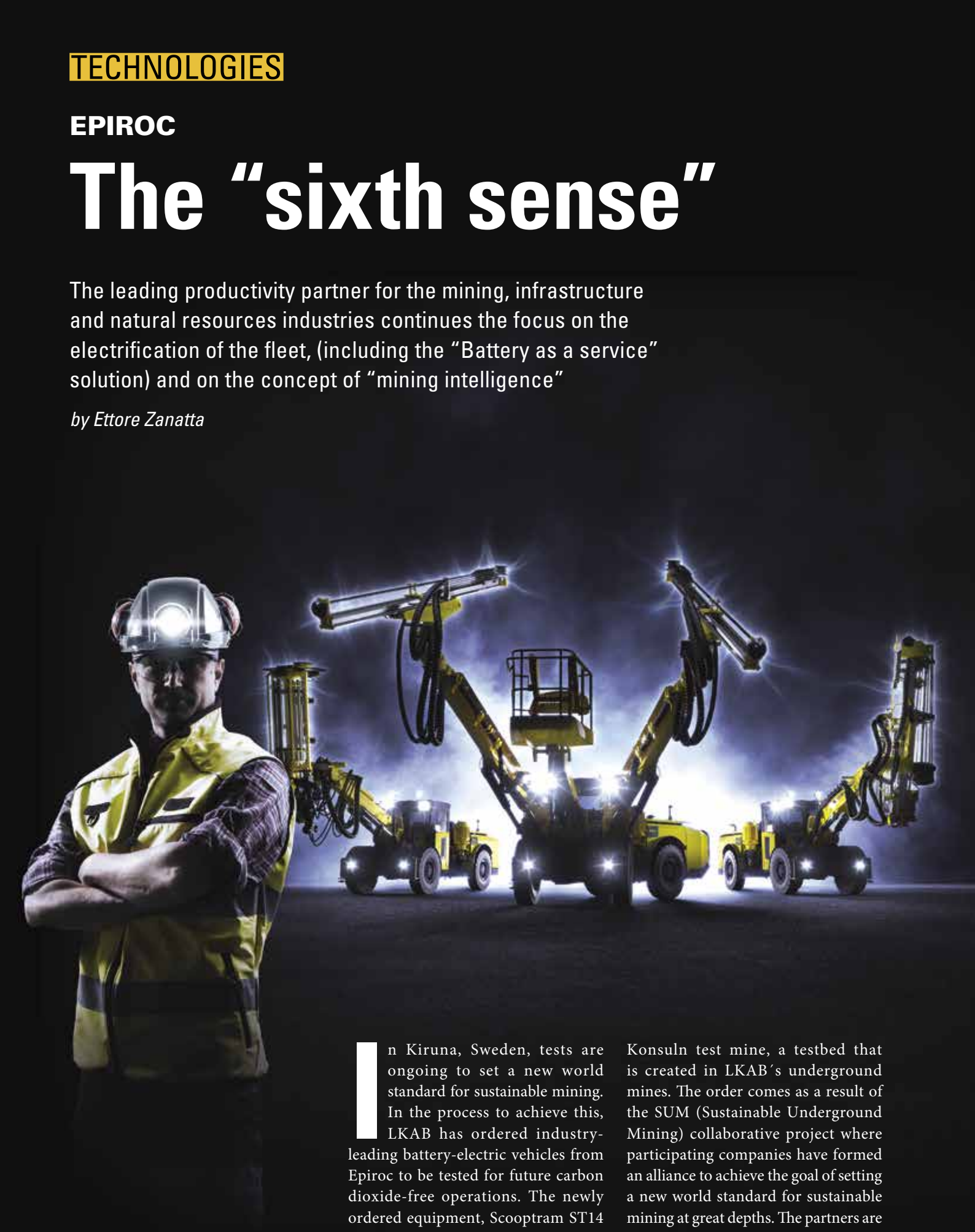
EPIROC

The "sixth sense"

The leading productivity partner for the mining, infrastructure and natural resources industries continues the focus on the electrification of the fleet, (including the "Battery as a service" solution) and on the concept of "mining intelligence"

by Ettore Zanatta



In Kiruna, Sweden, tests are ongoing to set a new world standard for sustainable mining. In the process to achieve this, LKAB has ordered industry-leading battery-electric vehicles from Epiroc to be tested for future carbon dioxide-free operations. The newly ordered equipment, Scooptram ST14 Battery and Minetruck MT42 Battery machines, will be used both in LKAB's main mine for production and in the Konsuln test mine, a testbed that is created in LKAB´s underground mines. The order comes as a result of the SUM (Sustainable Underground Mining) collaborative project where participating companies have formed an alliance to achieve the goal of setting a new world standard for sustainable mining at great depths. The partners are working together to find new methods and smarter solutions for mining operations of the future.

The voice of the protagonists

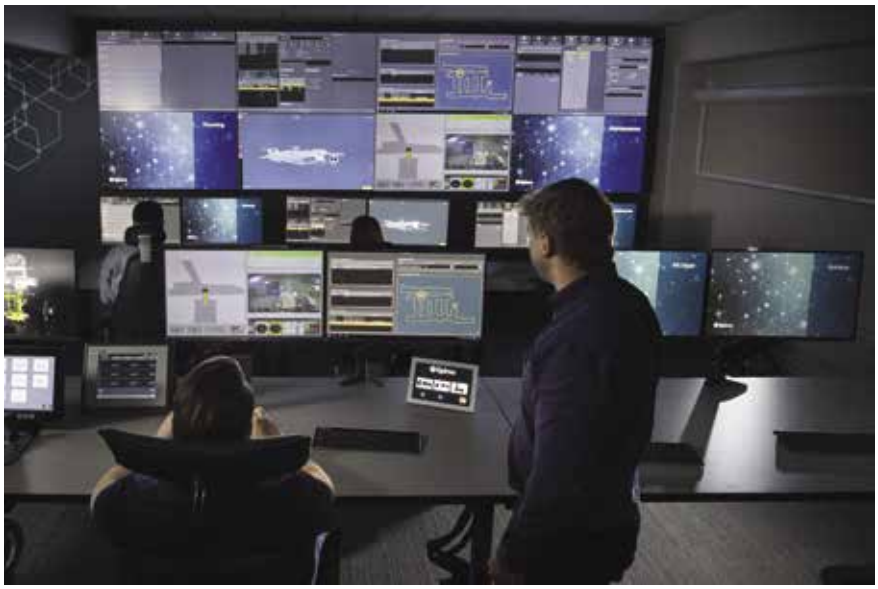
"Our goal is to develop intelligent, highly productive and CO_2-free machine systems", says Niklas Fors, Senior Project Manager Global Strategic Projects and Alliances at Epiroc. *"We are proud to deliver the world's greenest machines to LKAB. What we are developing makes a difference not only for underground operations, but for the planet as such".*

"LKAB is no stranger to electric machines in mining", says Thomas Kammerby, Senior Project Leader at LKAB. *"LHD's have been running electrically (cable powered) for quite some years. LKAB is striving to eliminate the use of fossil-based fuels as soon as possible and is therefore pushing to start testing alternatives to primarily diesel engines. Since LKAB always prioritizes "safety first" it is imperative that we take part in the development work around battery machines to understand all aspects of e.g. logistics, performance, handling of fire hazards. The alliance setup provides early access to battery machines and allows us to test several applications in a controlled fashion providing high confidence regarding the design of future CO_2-free mining".*

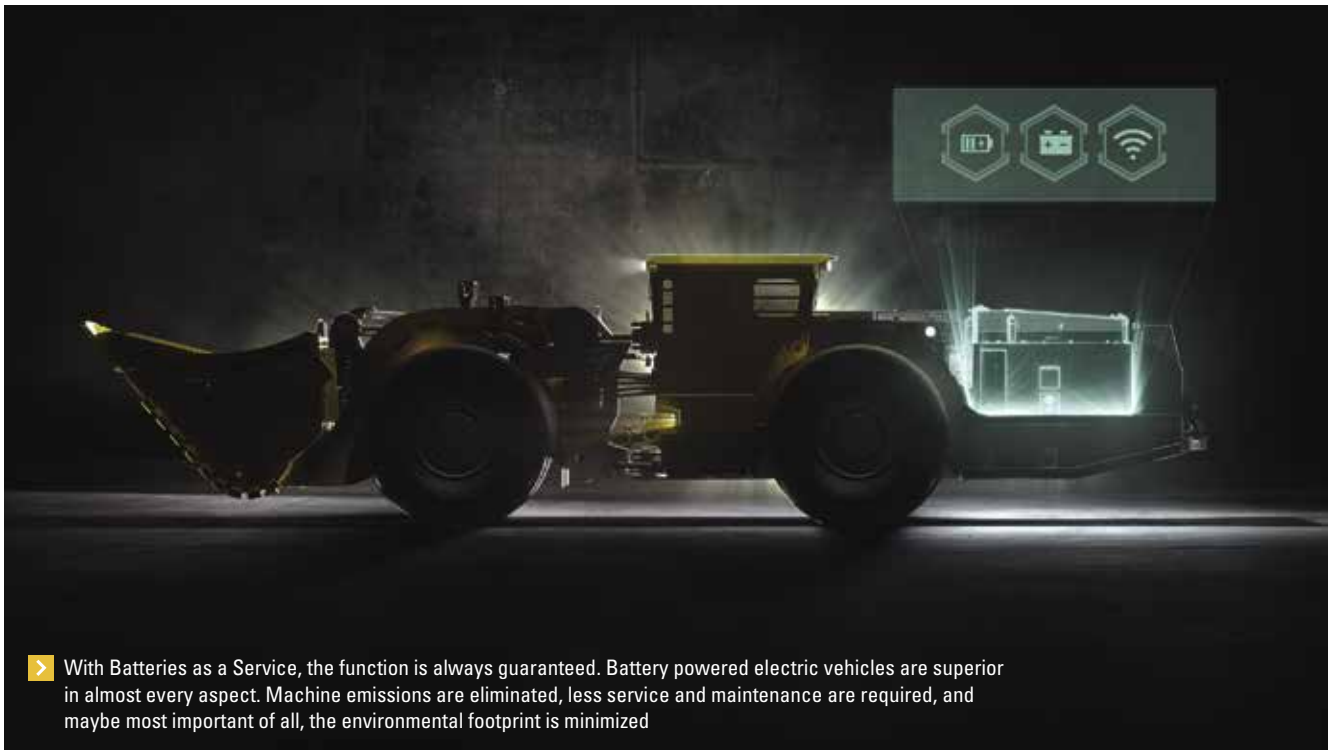
"Batteries as a service"

In addition, LKAB has ordered Epiroc's BaaS ("Batteries as a Service") solution for the ordered battery machines. With Batteries as a Service, Epiroc works directly with the customer to define a battery plan that suits the needs of their operation. The lifespan is guaranteed and the battery status is carefully monitored to ensure predictive maintenance with reduced downtime. If a customer wants to increase or decrease their capacity, they can adjust their plan and the service will be tailored to meet their requirements. The order will be delivered during 2021. Epiroc offers the widest fleet of underground battery-electric vehicles and has a circular, sustainable offering that also includes recycling.

Epiroc wants to boost productivity, enhance safety and cut emissions – all while lowering your total cost of operation. Battery powered electric vehicles are superior in almost every aspect. Machine emissions are eliminated, less service and maintenance are required, and maybe most important of all, the environmental footprint is minimized.



The 6th Sense is the Epiroc way to optimize our customers' value chain through automation, system integration and information management



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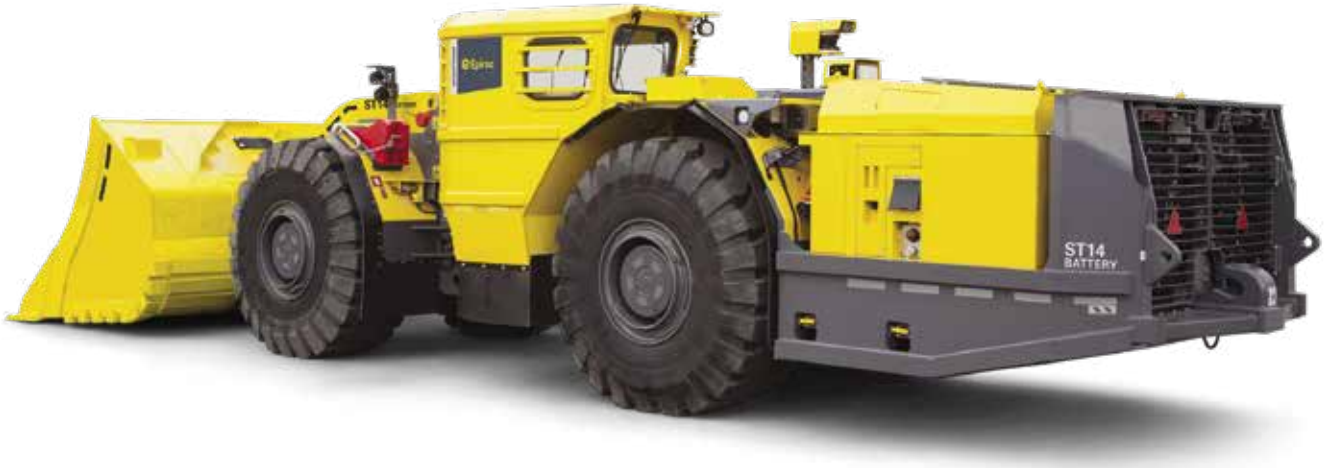
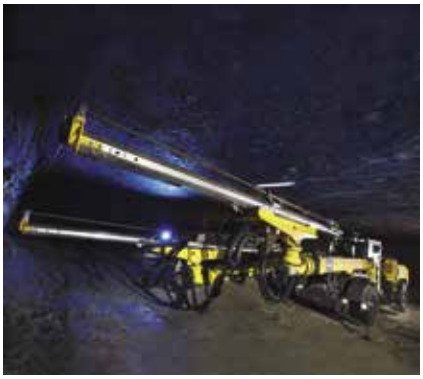


With "Batteries as a Service" (BaaS) Epiroc eliminates the risks of owning batteries, provides all the benefits of electrical power and will take full responsibility for the batteries, from certification to maintenance plus technology upgrades, using a truly circular business model that provides the battery operation as a service



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ITALIAN ABSTRACT

IL "SESTO SENSO"

Epiroc è uno dei principali partner per la produttività nel settore minerario e delle infrastrutture a livello globale. Con una tecnologia d'avanguardia, il costruttore svedese sviluppa e produce carri di perforazione per applicazioni minerarie e per le costruzioni innovativi, sicuri e sostenibili. L'azienda fornisce inoltre servizi e soluzioni per l'automazione e l'interoperabilità. Oggi, in particolare, Epiroc continua a concentrarsi sul tema dell'elettrificazione della flotta (inclusa la soluzione "Battery as a service") e sul concetto di "mining intelligence". Il suo obiettivo, infatti, è sviluppare sistemi di macchine "intelligenti", altamente produttive e capaci di garantire un'emissione di CO_2 pari a zero, sviluppando soluzioni innovative non solo per affrontare le operazioni sotterranee, ma che danno beneficio all'intero pianeta. Contestualmente, Epiroc lavora fianco a fianco con i propri clienti per sviluppare la soluzione "Batteries as a Service", pensata per eliminare i rischi legati al possesso di batterie e per fornire tutti i vantaggi dell'energia elettrica, utilizzando un modello di business "circolare".