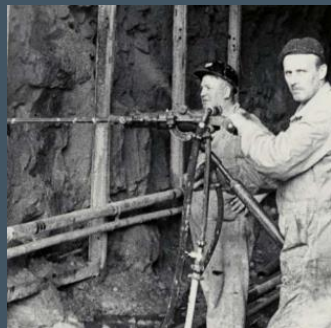




Batteri elektriske maskiner fra Epiroc

- Rolf Blomberg
- Underground Business Manager North Europe

Epiroc is a 152-year-old start-up on a trajectory to accelerate the transformation



~18 000 Employees¹



Customers in +150 countries
Production in 10 countries



+60 BSEK Annual revenue¹

1873
Company founded

1905
The pneumatic rock drill

1936
The jackleg and Swedish method

1973
The hydraulic rock drill and mechanized drilling

2018
Split from Atlas Copco and listing of Epiroc as an independent company

2024
ACCELERATE
THE TRANSFORMATION

1) 2023

Hvordan skal vi lykkes?

- Optimaliser i tidlig fase for batteri elektrisk drift.
- Avklar forventninger og jobbe aktivt med holdninger.
- Bruk mye tid på opplæring.
- Godt samarbeid viktigere enn noen gang.
- Planlegg driften godt, etabler gode rutiner.
- God lade infrastruktur.

Fordeler med bruk av BEV (underjord)

Redusert energiforbruk

Lav generering av varme

Ingen skadelige dieselpartikler

Mulighet for redusert ventilasjon

Høy virkningsgrad
sterke maskiner / høy akslerasjon / regenerering

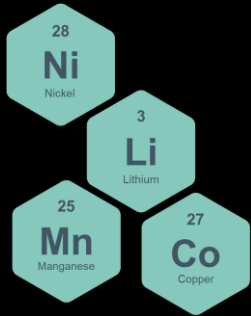
Redusert støy



BEDRE ARBEIDSMILJØ
REDUSERTE KLIMAUTSLIPP
HØY PRODUKTIVITET



Epiroc's battery system



Sub-pack



Cell



Module



Battery pack

Cell

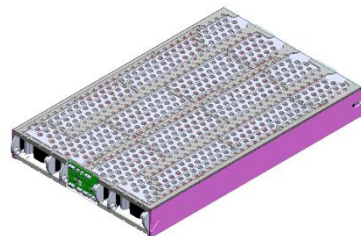
4.2 V
0.0676 kg



× 672 =

Moduel

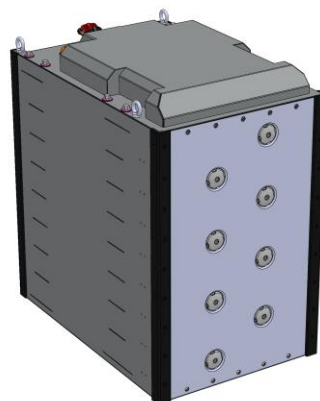
100 V
59 kg
672 Cells
24s28p



× 8 =

Sub-pack

800 V
640 kg
5 376 cells

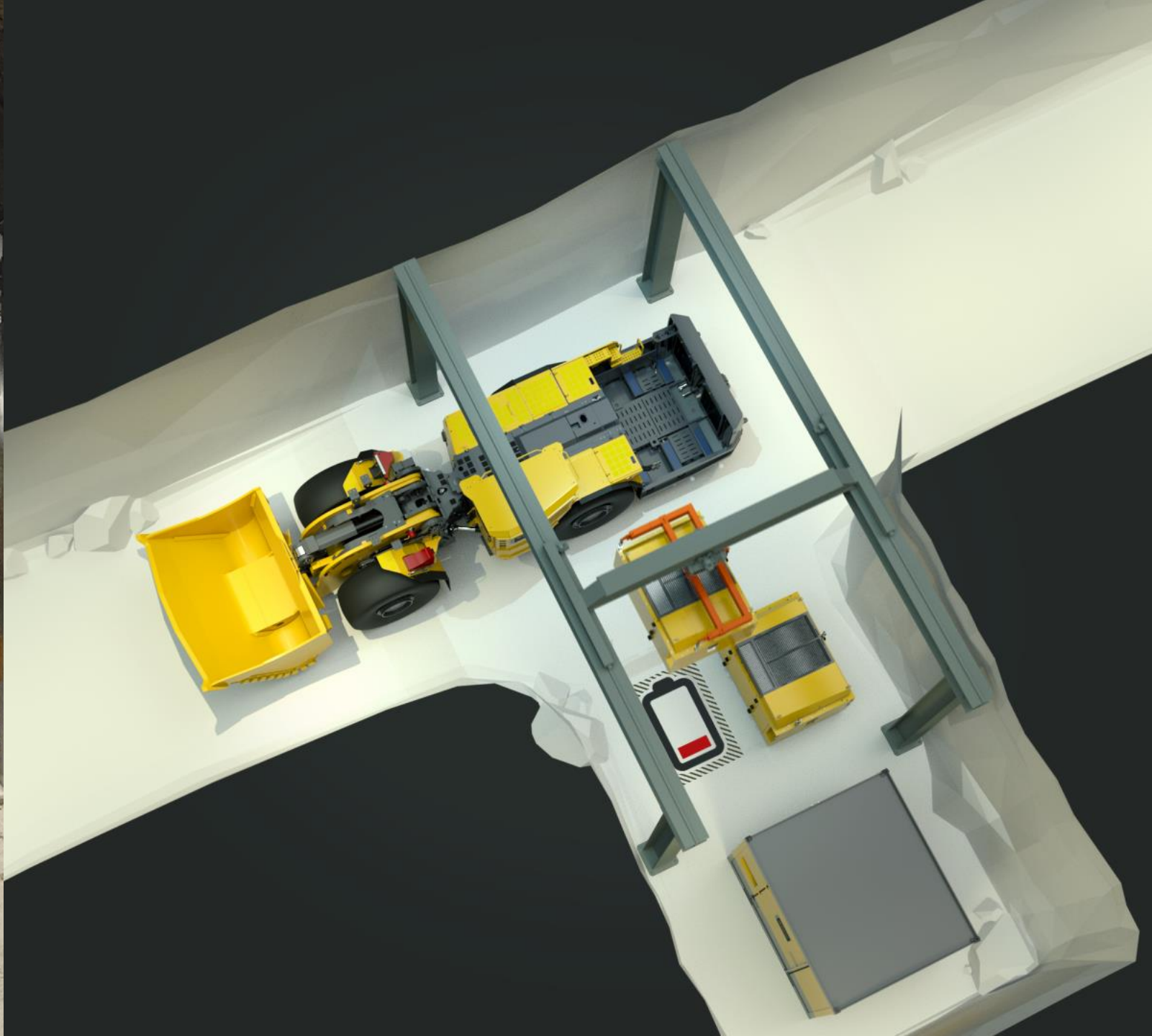


× 2 =

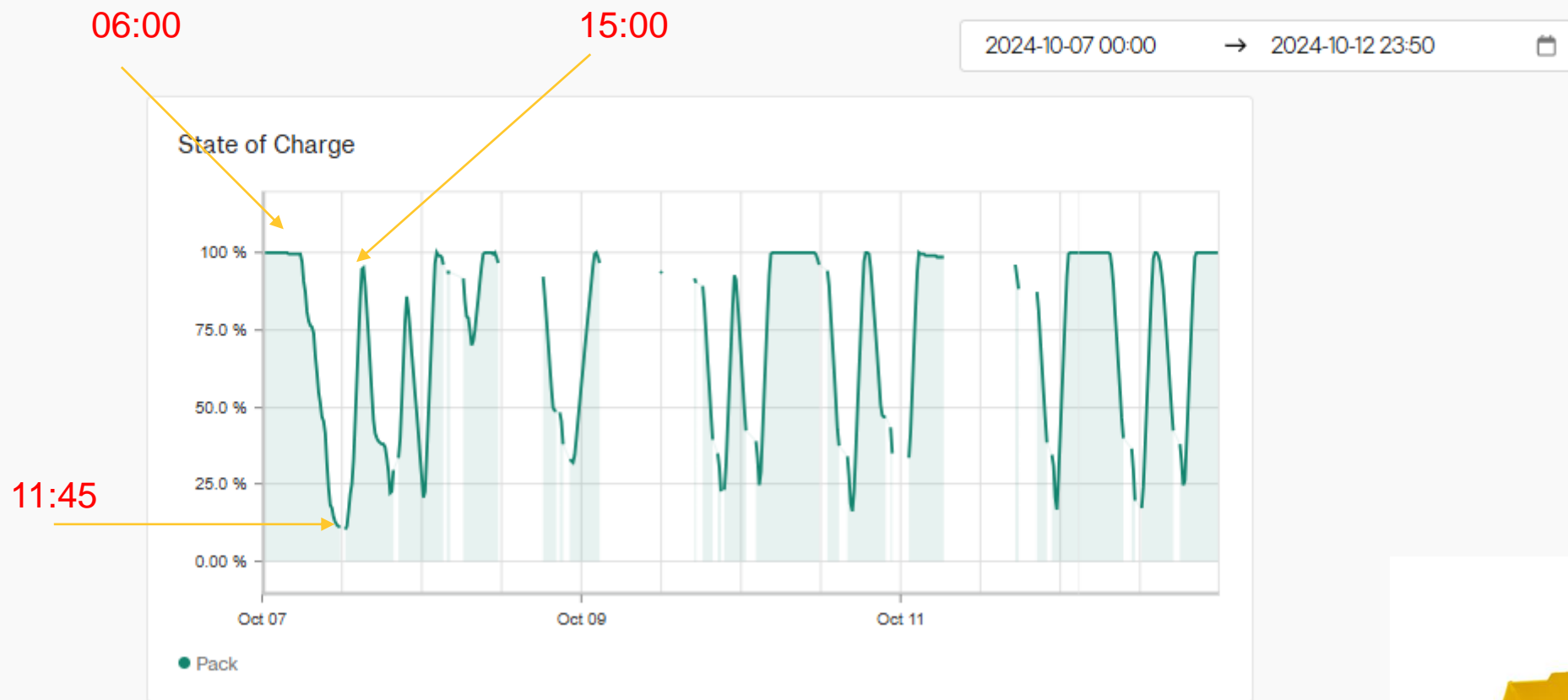
B2DR pack

800 V
2 000 kg
10 752 cells





Insights



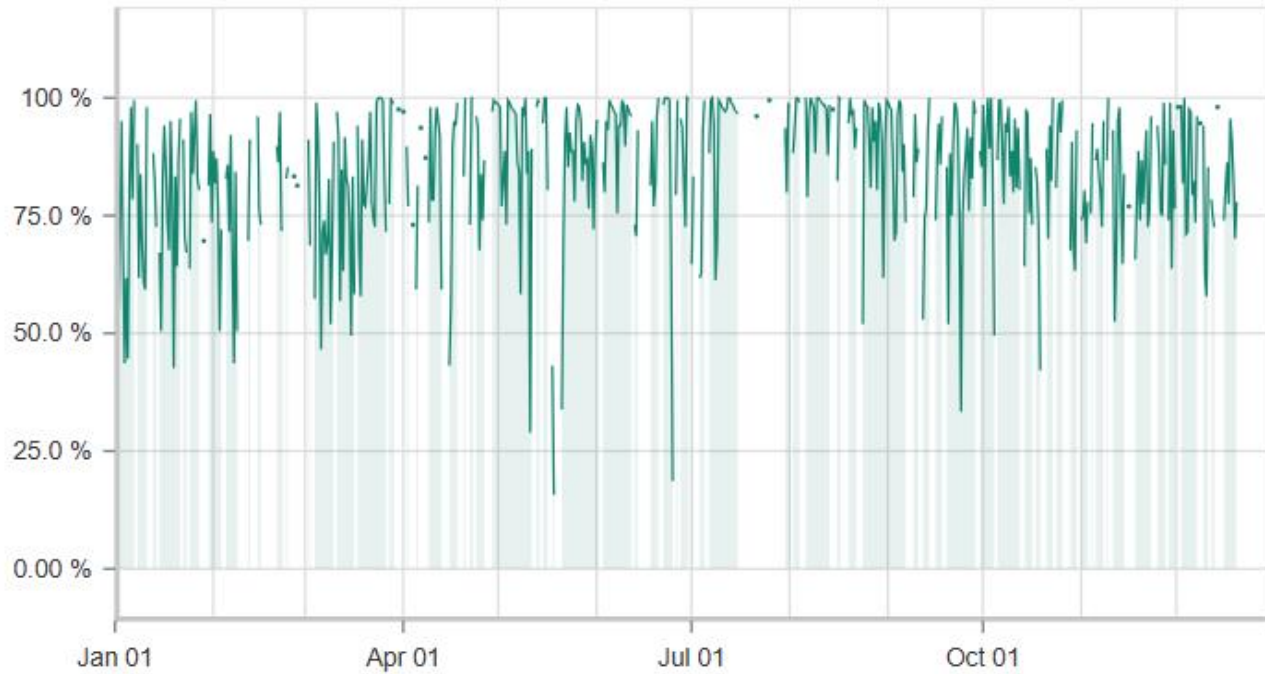
2024-01-01 00:00



2024-12-31 00:00



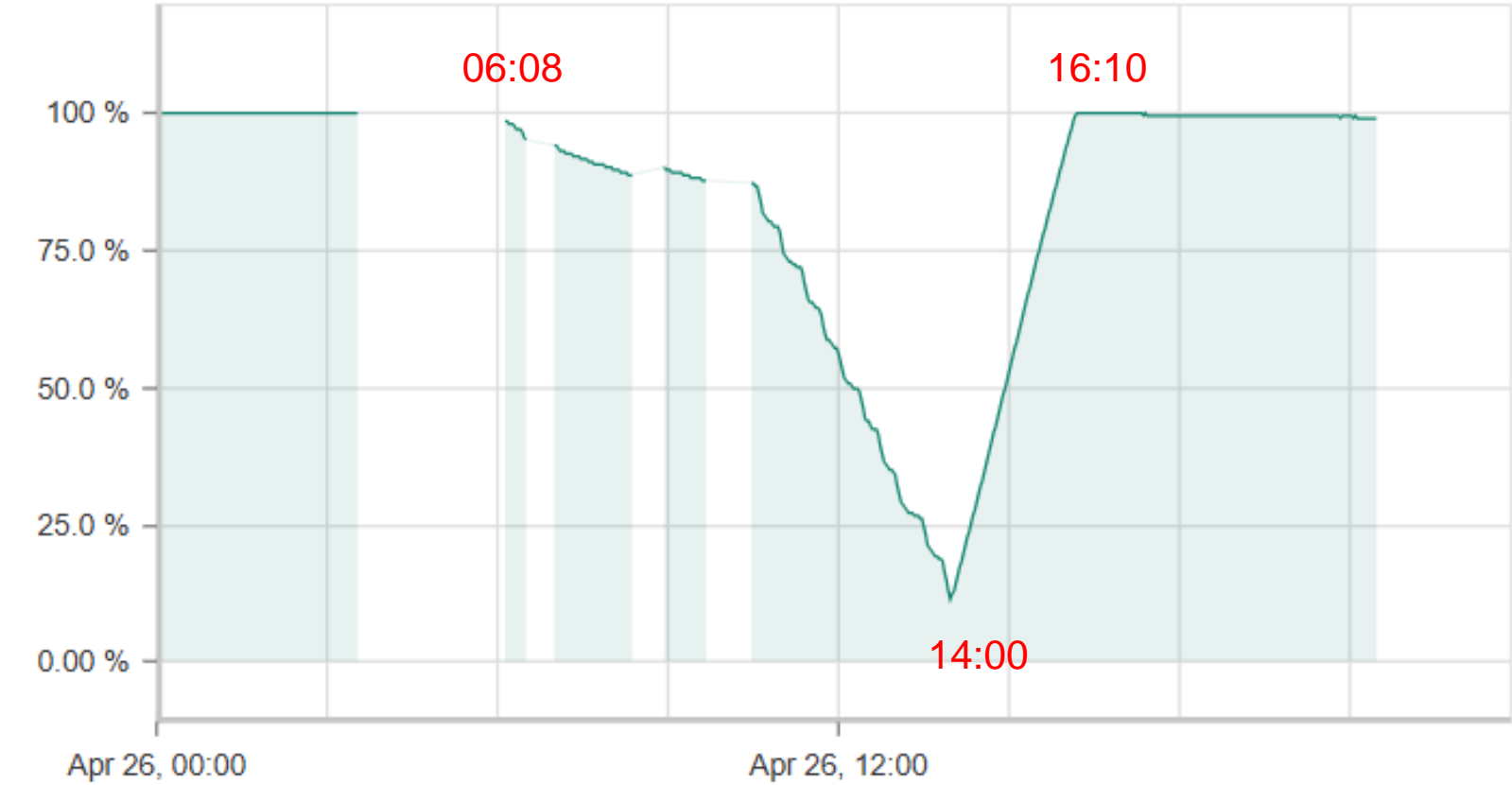
State of Charge



● Pack



State of Charge



● Pack

Scooptram ST14 SG



Tramming capacity
14 000 kg



Drift size
4.5 x 4.5 m



Speed
33 km/h



Battery capacity
300 kWh
CCS 2.0 charging
interface



Battery autonomy
~ 3.8 hours



Optimization
Full RCS with telematics
Automation-ready

Scooptram ST18 SG



Tramming capacity
17 500 kg



Drift size
5x5m



Speed
31,9 km/h



Battery capacity
450 kWh
CCS 2.0 charging
interface



Battery autonomy
~ 5.0 hours



Optimization
Full RCS with telematics

Distribution boxes

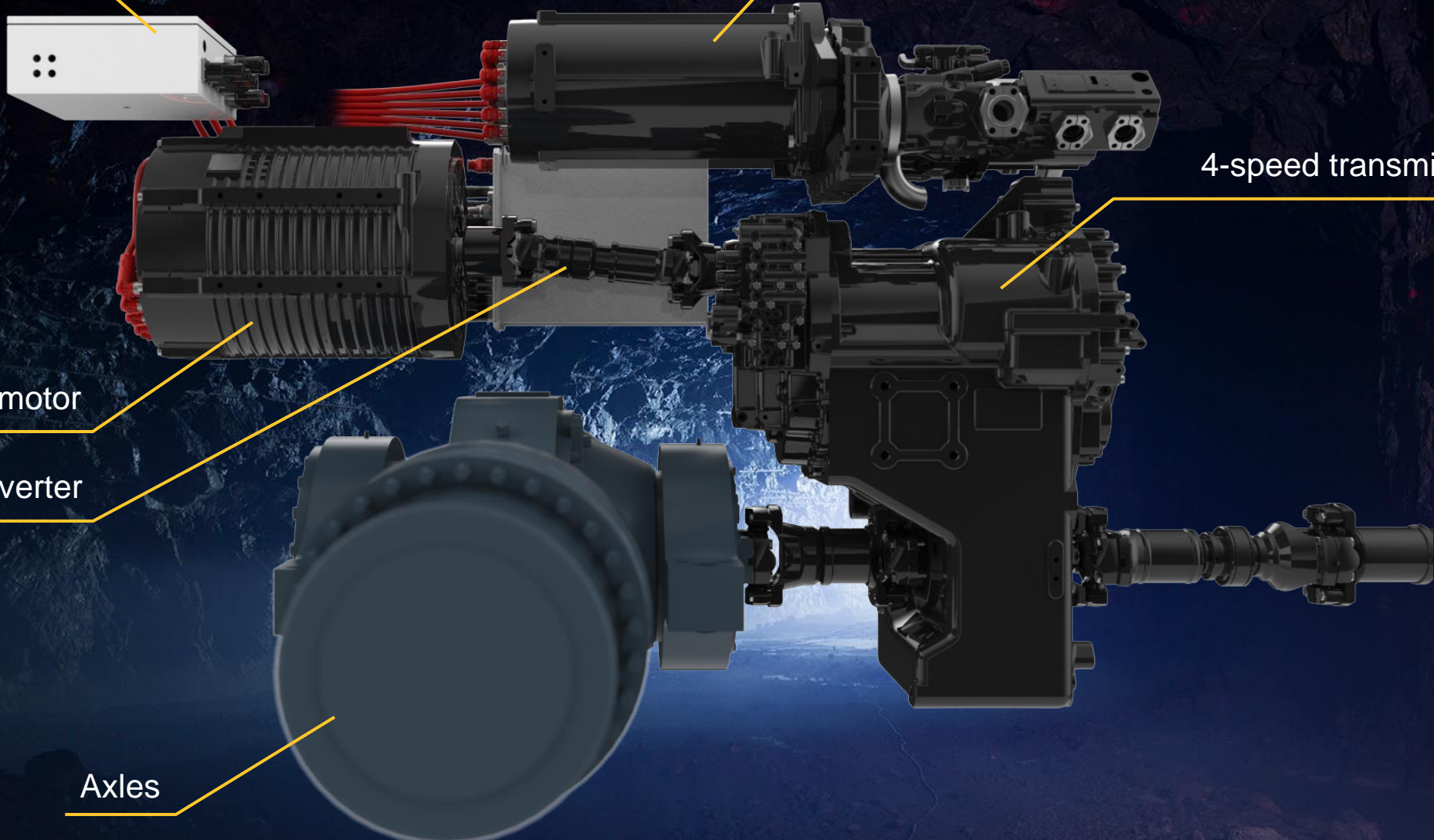
Auxiliary motor

4-speed transmission

200 kW traction motor

Inverter

Axles



Perfect match

Minetruck MT42 SG



Payload capacity

42 000 kg



Drift size

5x5m



Speed

19 km/h



Battery capacity

375 kWh



Battery autonomy

~ 4.5 hours



Optimization

Full RCS with telematics



Kapasiteter Minetruck MT42 SG

Rampe 15%



Last opp, 100 m + 500 m + 100 m
11 vendinger
Kjøretid 2 timer og 35 min.
462 tonn
(2600 m / 1% / 300 – 350 tonn)



700 m
20 vendinger
Kjøretid 4 timer og 15 min.
840 tonn



Last ned, 100 m + 500 m + 100 m
29 vendinger
Kjøretid 6 timer og 15 min.
1218 tonn





Boomer E20 SG og M20 SG

Krever ingen ekstra infrastruktur, lader via kabel under boring.
Samme batteriteknologi som øvrige maskiner, CCS / 150 kWh
Stor rekkevide på hele 30 km.
Ingen oppvarming av batteri, alltid klar for bruk.



7 kilometers on
grade (1:7)

30 kilometers on
flat ground



Minetruck MT66 S eDrive







SmartROC T35 BE



- Produktivitet som dagens rigger
- 75% like med T35
- Bor og kjør i 1 time på batteri
- Energi via kabel for kontinuerlig boring, 1000V
- Batteri lades under boring via kabel.
- Kjente løsninger brukes igjen
- Skalerbar teknologi og design

*Status; under utvikling,
To prototyper tilgjengelig for utleie i dag!*



United. Inspired.

Performance unites us, innovation inspires us,
and commitment drives us to keep moving forward.

Count on Epiroc to deliver the solutions you need
to succeed today and the technology to lead tomorrow.

[epiroc.com](https://www.epiroc.com)





Epiroc