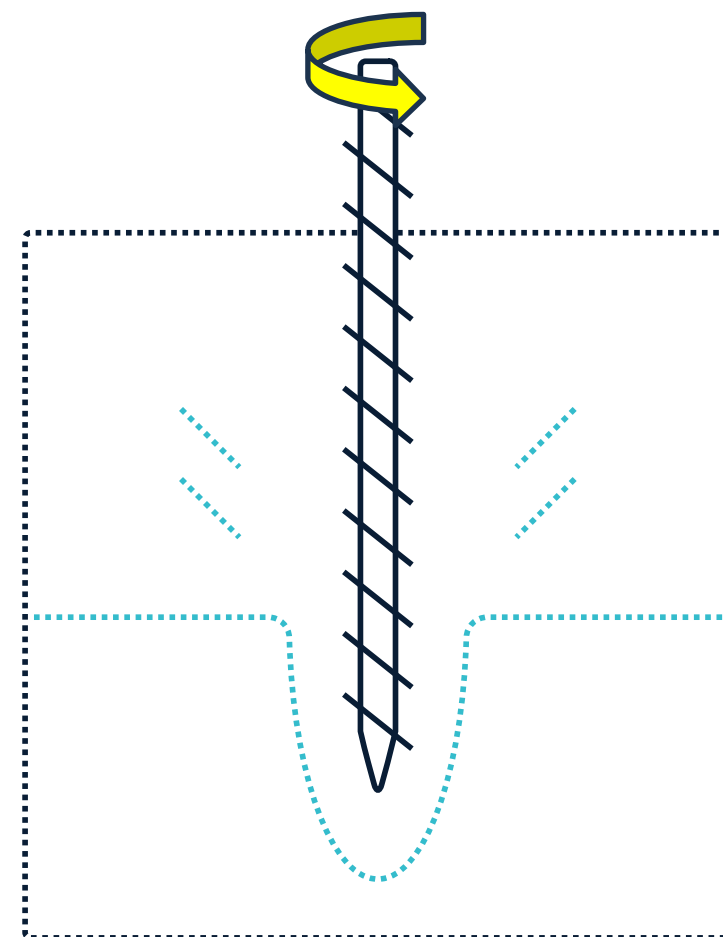
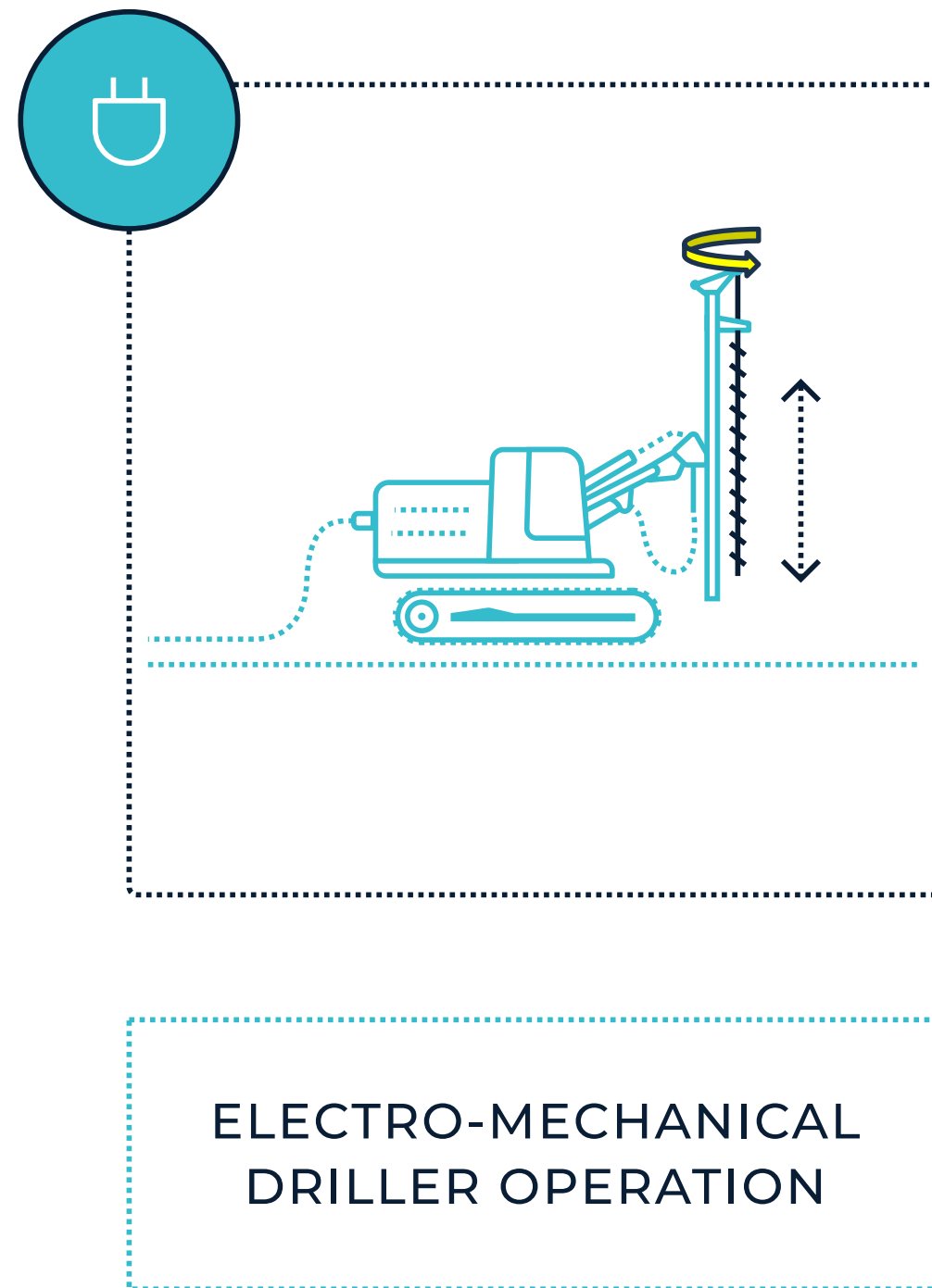


CASE STUDY

Smart drill for optimized drilling process

/ "SmartDrilling": Drilling process significantly optimized

New USPs with VirtualSensor



Creation of value-added functions

The electrification of the drill drive pays for itself through by:

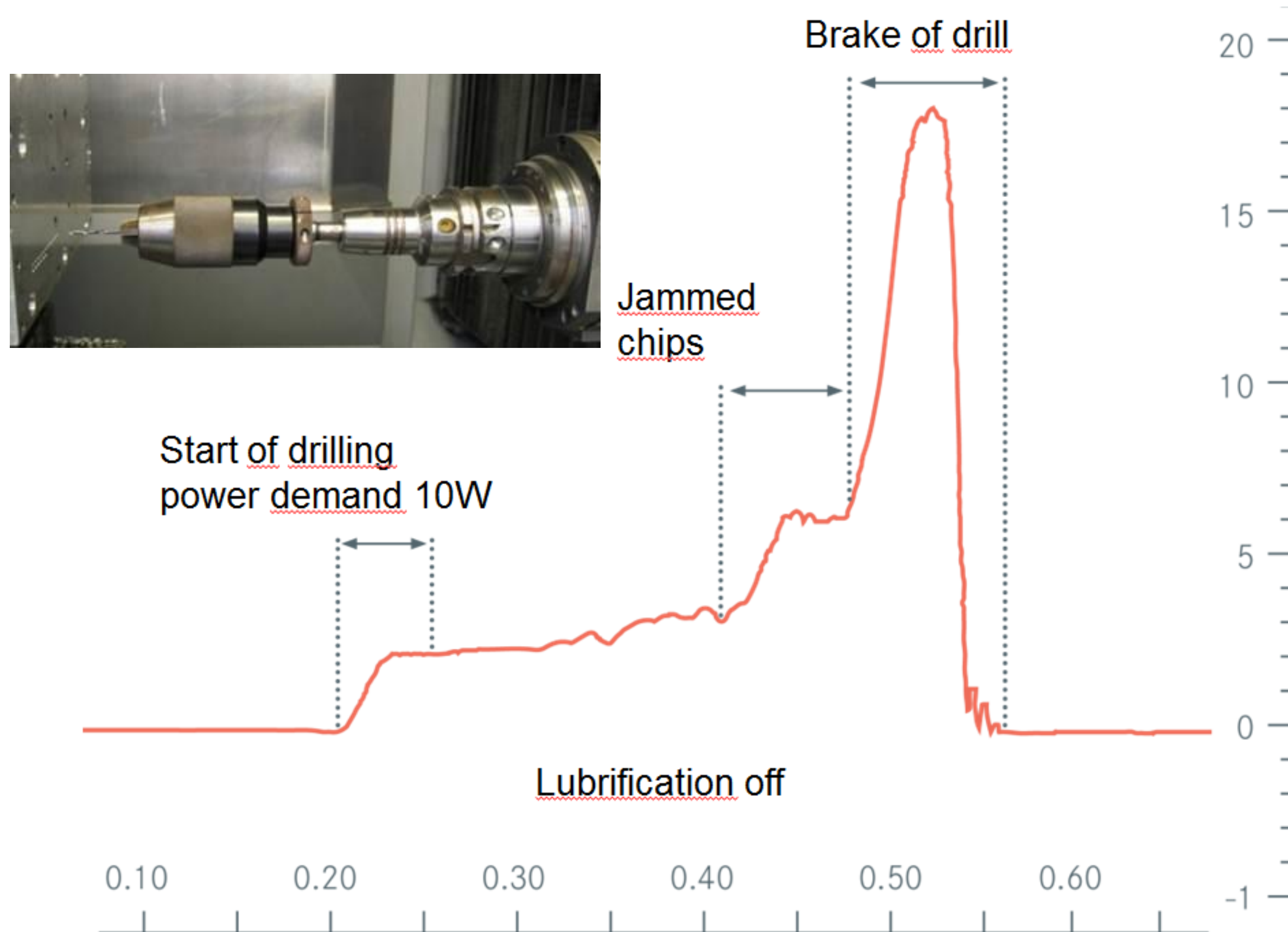
- Considerable energy savings.
- High-resolution and real-time drilling process monitoring enables improved controllability and thus higher average drilling feed rates.
- Reduced maintenance effort and reduced risk of unplanned tool failures.

The rotary movement of the drilling process is electromechanical. We offer electric motors and inverters for this purpose. The feed remains hydraulic.

We see a key to these value-added functions through the use of our [VirtualSensor](#) technology.

/ VirtualSensor: our experience advantage

Application: 50kW spindle with 2mm drill bit



Application: Special milling machine

Implemented several years ago for a special application:

- Spindle for milling and drilling with a nominal power of 50 kW
- Processes that required less than 0.1% of the nominal power had to be observed in real time
- Torque sensors proved too unreliable
- VirtualSensor in the ARADEx spindle inverter solved the task and meant the sensor was no longer required

Our sales team has more information and impressive videos on the potential of VirtualSensor ready for you!

/ VirtualSensor for mobile machinery

This technology is also available for you



"VirtualSensor" ready for your applications

... also specifically for mobile applications and working machines in "heavy-duty" environments.

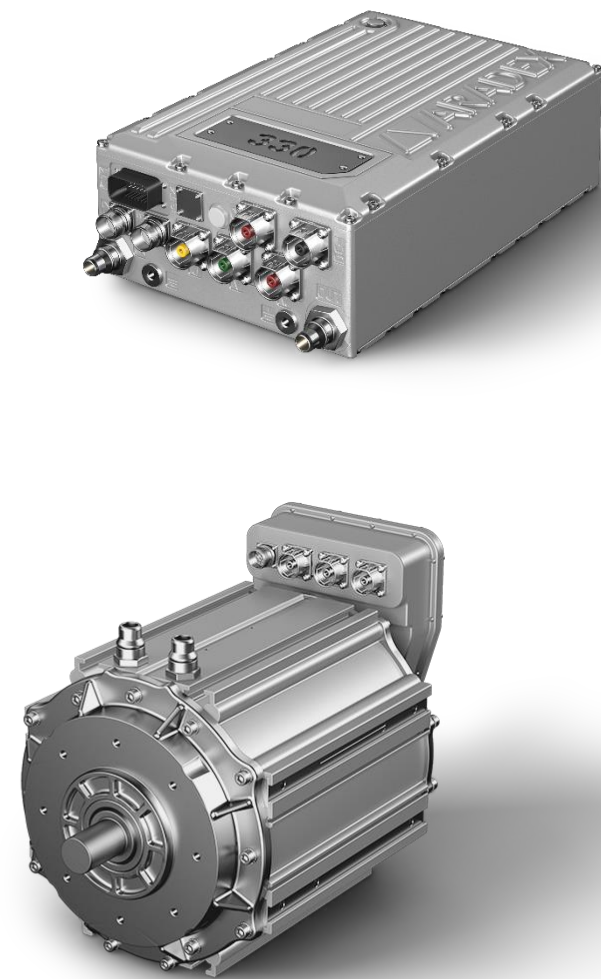
VECTOPOWER inverters offer you:

- Determination of the torque of electric motors in very high resolution and in real time, without using potentially interference-prone sensors.
- Integrated PLC functionality for processing these measured variables in real time.
- Synergy of inverter and machine controller: by combining the machine function in your controller with the extremely fast signal processing in the inverter.
- Integrated oscilloscope functions and log files for optimization, documentation etc.....

/ What can ARADEX offer for your project?

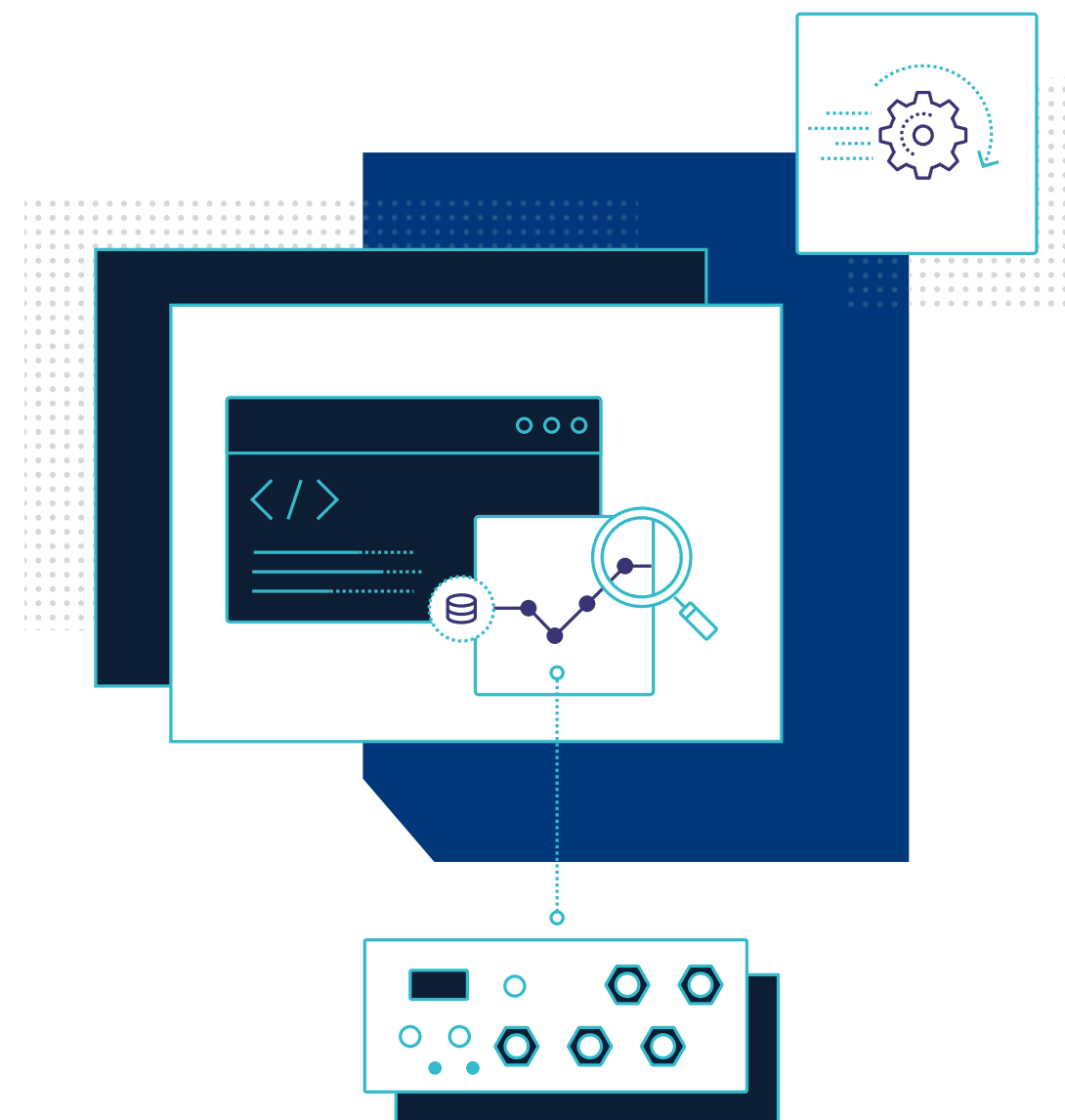
Hardware, software, tools

HARDWARE



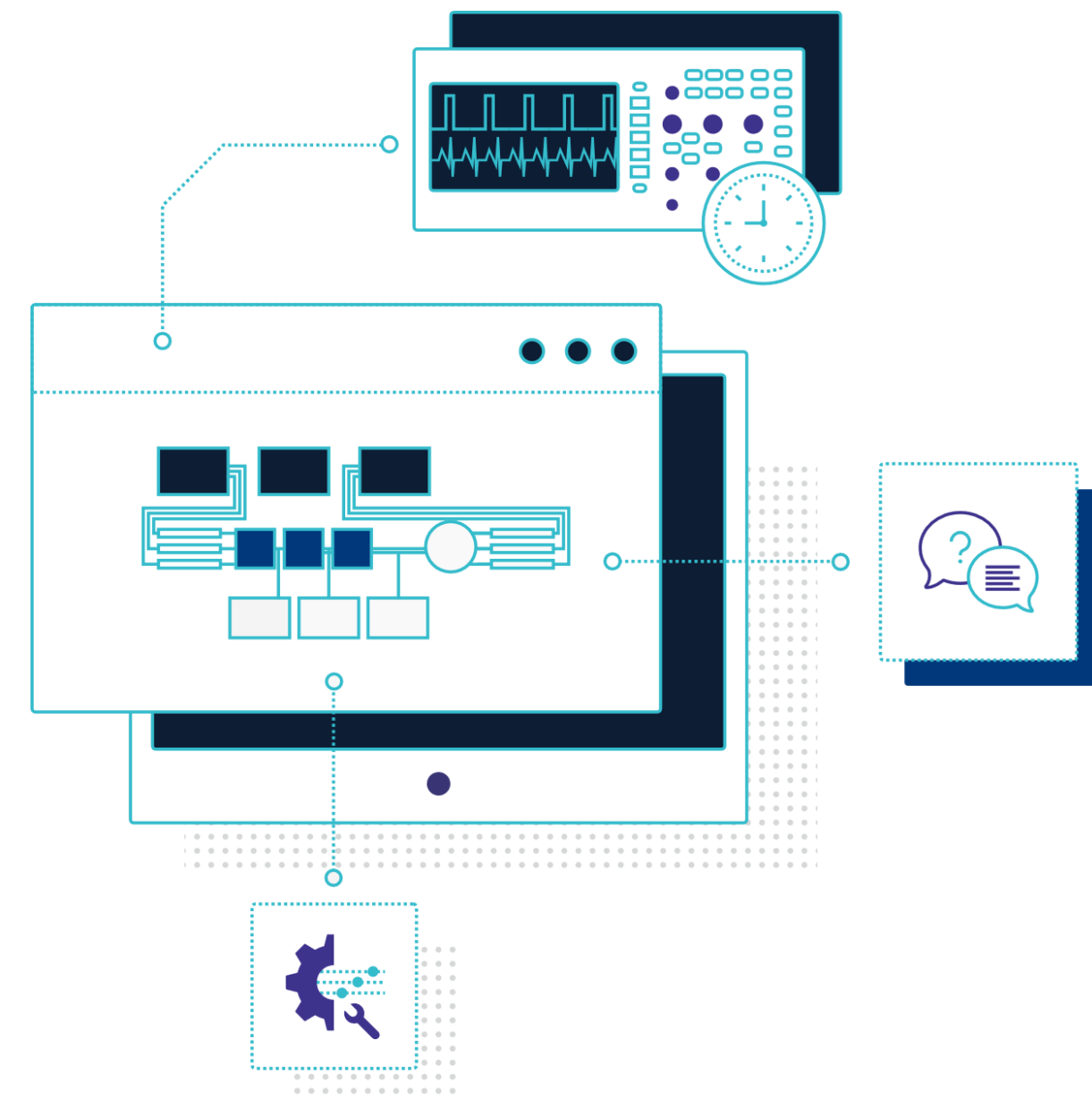
- Inverter
- E-motors
- Accessories

INTEGRATED SPS FUNCTION



- Sophisticated real-time PLC
- For function and diagnostics
- Your know-how, your USPs

TOOLS






- Programming
- Parameterization
- Oscilloscope function



Challenge us with your application!

**Proven added-value
mobile drive technology**



-  Ziegelwaldstr. 3, D-73547 Lorch, Germany
-  Sales@aradex.com | Vertrieb@aradex.com
-  +49 / (0)7172 / 9181-0