



LEADER 2.0

Energy is more valuable than ever, and Europe's climate targets – as set down, for example, in the European Green Deal – are ambitious, especially for the rail industry. The European version of the **LEADER** (Locomotive Engineer Assist Display & Event Recorder) Driver Advisory System (DAS) represents a powerful response to challenging questions such as how to improve operational energy efficiency and traffic flow.

“LEADER 2.0 is the next evolution of our well established LEADER which is in service since 2018. A bunch of new features will lead to significant improvements in energy saving, traffic flow and driver experience.”

Driver Advisory System are designed to save energy by displaying driving recommendations on an ergonomically optimized display. To achieve the best saving result in the entire network traffic flow must be optimized and each vehicle must run in the optimal speed. To achieve this LEADER 2.0 provides 3 levels of optimization:

- live traffic information from the near network to improve traffic flow in the entire network
- live traffic information regarding traffic directly in front and in the rear to improve the traffic flow on the track
- optimization of the train itself with useful input data: position with highly available GNSS including topography data, train parameters, weather information, electronic timetable



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All this information is worked out with the right priorities in one single driving recommendation which makes it very easy for the driver to contribute to a maximum of energy saving.

LEADER is capable to handle multiple input data, such as SFERA, railML and customer specific proprietary data formats. This provides the necessary flexibility to introduce LEADER in all markets.

A user fee which is a share of the actual proven energy saving. A win-win situation with the following advantages

- Extremely Low investment in hardware and software
- Low risk for the customer
- No maintenance costs
- Access to back office with a wide range of functionality
- Benefits from global experience from Knorr-Bremse with continuous improvement
- Customer can influence the development roadmap



Further customer benefits

- No vehicle interface required – high level of flexibility. Prepared for an easy integration into existing hardware
- Tool for real-time monitoring and analytics that operates in tandem with a carbon-neutral, cloud- and web-based back office
- Increased energy efficiency in rail operations, also in terms of traction and wear & tear
- Major contribution to enhancing and improving traffic flow, as well as rail infrastructure capacity, by incorporating live traffic updates on infrastructural occupancy
- Comprehensive User Interface is guiding the driver intuitively, very few drivers education required to achieve maximum saving from day 1 on.





High flexibility to use:

LEADER 2.0 can run on tablet computers as well as on installed panel PCs in the driver's cab.

LEADER 2.0 can be made available as a standalone solution or as LEADER4DiLoc embedded in CN-Consult's DiLoc|Sync workflow environment for driver's cab processes running on mobile devices.

With its many applications, DiLoc|Sync acts something like a Swiss Army knife for digitizing the driver's cab.



Driver Advisory Systems built into driver's cab runs on a panel PC permanently installed in the driver's cab. Both operators and their personnel benefit from an ergonomically optimized user interface with a clear layout that uses the entire screen to display driving recommendations. This makes interpreting the recommendations as intuitive and stress-free as possible.



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