EASTERN EUROPE PERFECTLY NETWORKED.
BOMAG BCM NET OPTIMIZES THE CONSTRUCTION SITE.
At first glance, the area appears very remote. You might be surprised to learn that here in the rural area around the border triangle of Lithuania, Latvia and Belarus, BOMAG’s latest high technology is in operation. But the Lithuanian road construction company, Panevezio Keliai, which was awarded the contract to renovate several kilometres of the E262 in Zarasai, is innovative and likes to go new ways.

The asphalt compaction demands top quality because, far from being remote, the E262 connects Warsaw and St. Petersburg. The strain of heavy goods vehicle traffic on the road is accordingly intensive. In order to guarantee the high quality standards required, Tomas Baciunas, Manager of Engineering & Technology at Panevezio Keliai, uses BCM net for compaction control.

BCM stands for BOMAG Compaction Management. The compaction control system links all machines involved in the construction process and integrates a tablet PC and a GPS receiver into every single roller. In this way, BCM net provides every roller driver with a continuous overview of the number of completed passes, temperatures and compaction progress. As well as a general overview, with the tablet PC in the cab, they can all see their own results at a glance enabling them to optimize their rolling schedule. The drivers can follow the development of a “compaction map” on the tablet. Data on passes, temperature and the $E_{vib}$ value for asphalt stiffness are not only

On the tablet, a “compaction map” is developing with data on passes, temperature and the $E_{vib}$ value for asphalt stiffness.
visually displayed, but also saved for complete documentation. With a simple colour display – green shows sufficient compaction, red where further passes are required – the driver knows immediately where there is still work to be done.

For manager Tomas Baciunas, the advantages of networked machines are plain to see: “BCM net enables us to improve both the quality and efficiency of our asphalt construction at the same time.”

MANUFACTURER-INDEPENDENT: RELIABLE MEASUREMENT AND DOCUMENTATION
Baciunas had BCM net installed in four rollers. Two new BW 174 AP-AM tandem rollers were equipped ex factory. A further BOMAG BW 174 AP from stock and a roller from a different producer were retrofitted. “On the A2 project, all four rollers were in use together right from the start – with no problems whatsoever. It’s important to us that BCM net works irrespective of the brand of roller.” says Baciunas. However, particu-
monitor. “This prevents the operators from driving too early onto hot material.” Baciunas explains. The possibility of already detecting the temperature on the paver and displaying it in the BCM net is something he also considers very interesting: “We will certainly be looking into this”.

OPTIMIZED PROCESSES BY SIMPLE HANDLING
That the system is easy to handle was clearly demonstrated by the instruction required for the drivers: No training whatsoever was necessary, the drivers needed do nothing more than switch the Tablet PC on and off – everything else was self-explanatory. The coordination of the construction processes and analysis of the resulting data is also greatly simplified for the site manager. All the preparation and post processing can be easily performed on a PC in the office. “The tremendous amount of data available was one of the crucial factors for us in deciding on BOMAG BCM” says Baciunas. With the help of the data he now has the opportunity to further optimize his processes. Regardless of the setting selected, everything is consistently documented: passes, temperatures, $E_{vib}$, speeds, vibration, area output and much more. “This data is a real mine of information for optimization and safe operation procedures.”

Another feature also differentiates BCM net from other manufacturers’ systems: All the machines are linked with each other via WLAN. Lags caused by mobile telecommunications or servers are eliminated enabling real-time imaging and maximum availability. Even if the WLAN connection were to be interrupted, no data would be lost. “The communication was completely reliable during all our operations. We haven’t had the chance to test the maximum limits yet, but we have had no problems whatsoever over a distance of 400 m between the rollers.”

After just 5 months of first-hand experience, Tomas Baciunas is certain BOMAG BCM net was the right decision: “This is definitely the future standard and will improve quality and efficiency.” The ease of use and reliability from the very beginning have convinced him. And this is particularly important when the construction site is as remotely situated as the Lithuanian E262 in Zarasai.
“The communication was absolutely reliable in any applications. This is definitely the future standard and will improve quality and efficiency. This data is a real mine of information for optimization and safe operation procedures”, says Tomas Baciunas.