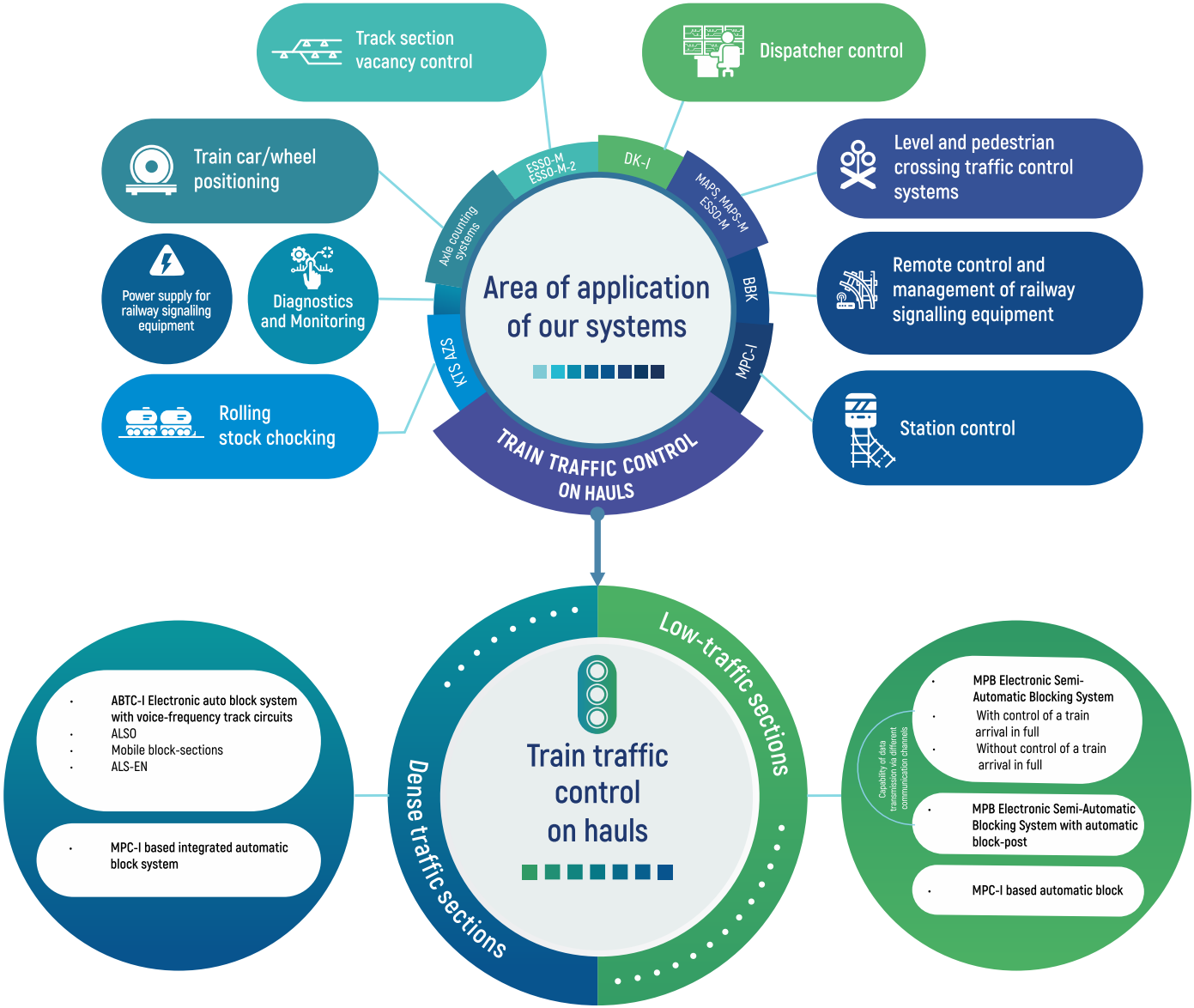
Research&Development Company
PROMELECTRONICA

Train traffic control on hauls

ABTC-I Electronic auto block system with voice-frequency track circuits

MPB Electronic Semi-automatic Block System

npcprom.ru


Track section vacancy control
Dispatcher control
Train car/wheel positioning
Level and pedestrian crossing traffic control systems
Power supply for railway signaliling equipment
Diagnostics and Monitoring
Remote control and management of railway signalling equipment
Rolling stock chocking
Station control
Area of application of our systems
ESSO-M ESSO-M-2
DK-I
MAPS, MAPS-M ESSO-M
BBK
MPC-I
TRAIN TRAFFIC CONTROL ON HAULS
KTS AZS
Axle counting systems
ABTC-I Electronic auto block system with voice-frequency track circuits
ALSO
Mobile block-sections
ALS-EN
MPC-I based integrated automatic block system
Train traffic control on hauls
Dense traffic sections
Low-traffic sections
MPB Electronic Semi-Automatic Blocking System
With control of a train arrival in full
Without control of a train arrival in full
Capability of data transmission via different communication channels
MPB Electronic Semi-Automatic Blocking System with automatic block-post
MPC-I based automatic block

ABTC-I ELECTRONIC AUTO BLOCK SYSTEM WITH VOICE-FREQUENCY TRACK CIRCUITS

- ABTC-I is designed for train spacing and ensuring train traffic safety at any type of sections, including high-speed ones, with any type of traction on single, double and multitrack railways.
- The system is based on voice-frequency track circuits without insulating joints. Each of adjacent stations is fitted with ABTC-I subset that manages its part of the line.
- Indoor equipment can be housed both in a stationary building or MKM Transportable Module.

APPLICATIONS

- Increasing of line throughput .
- Reduction of capital and running costs.
- Improvement of control efficiency and personnel work environment.

ALSN/ALS-EN
CODING

SCALABLE DEPARTURE
SECTIONS

MOBILE BLOCK
SECTIONS

TRACK CIRCUIT LENGTH
UP TO 800 M

RAILWAY HAUL LENGTH
WITHOUT CONCENTRATION POINTS

UP TO 30 KM

RELIABILITY AND SAFETY

Increased resistance to impulse, commutation and thunderstorm overvoltages

Confirmed **cybersecurity**

FSTEK Certificate for protection against undeclared capabilities and unauthorized access

USER ADVANTAGES

Fully non-relay system.

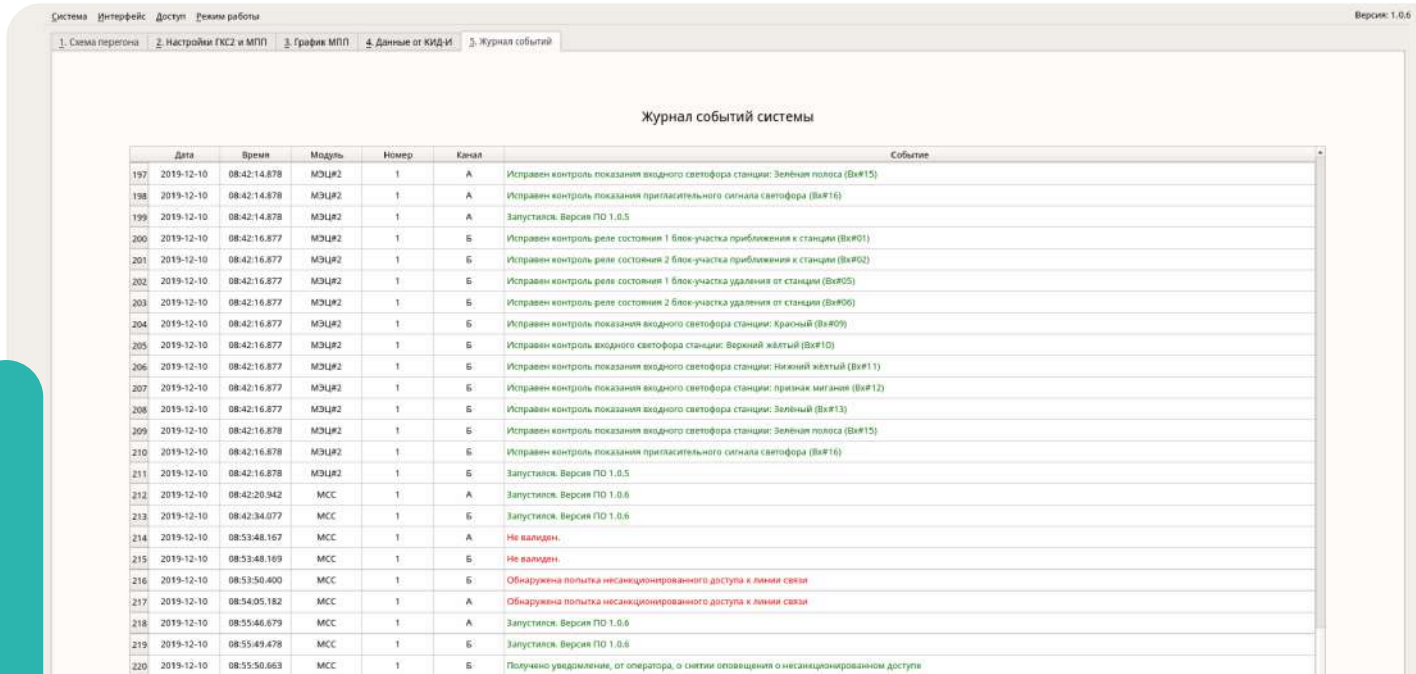
In-built diagnostic and monitoring system, continuous event logging.

Integration with MPC-I Interlocking via digital interface.

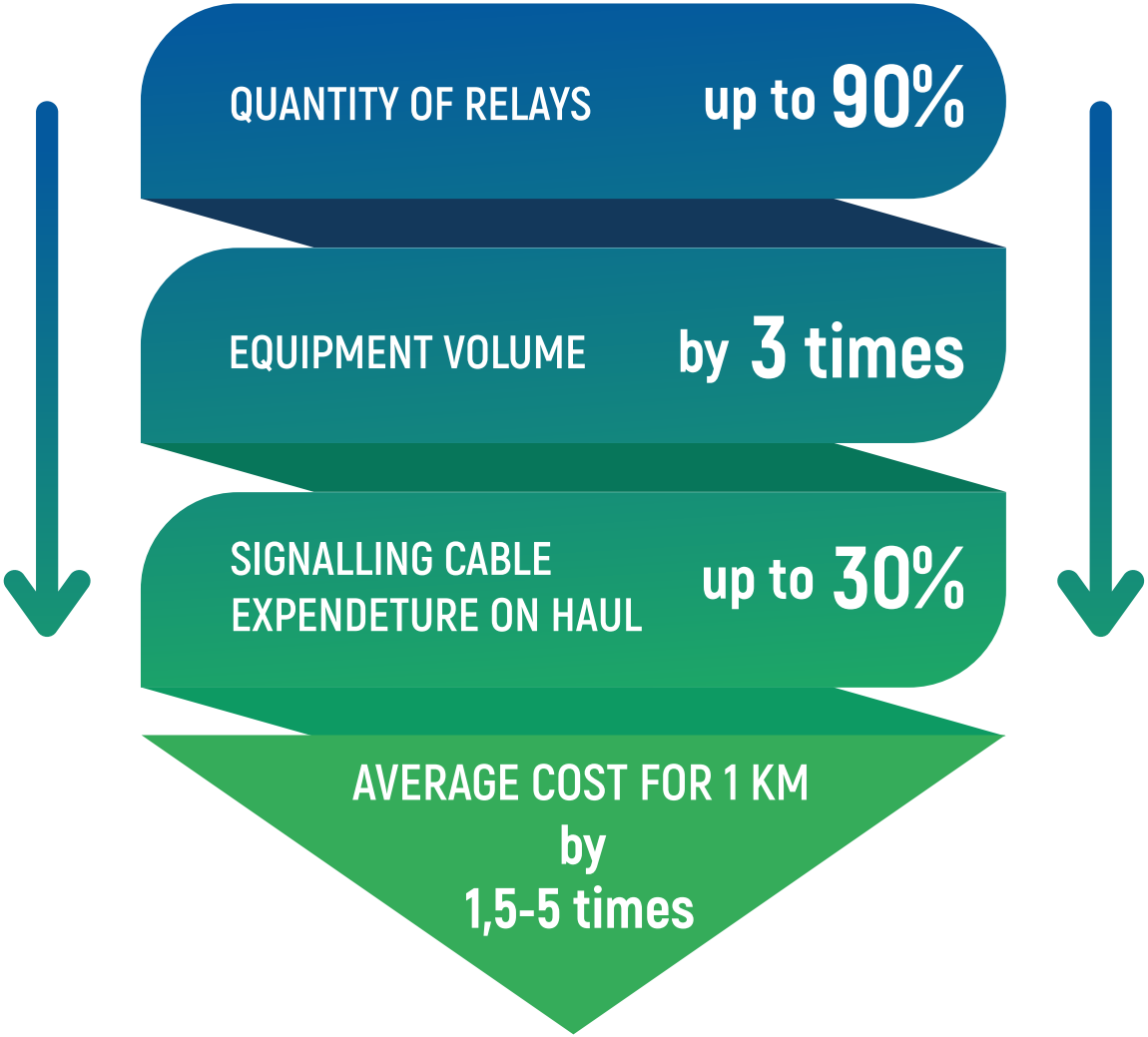
Low maintenance.

Power efficient equipment.

ABTC-I Diagnostic and monitoring subsystem



REDUCTION OF RUNNING COSTS



*in comparison with other automatic block systems

MPB SEMI-AUTOMATIC BLOCK SYSTEM

- MPB is designed for train spacing on lines with low traffic intensity.
- MPB can transmit data both through physical communication lines and digital systems, such as voice-frequency channel multiplexing equipment, fiber-optic lines and radio channels.
- The system is compact and can be housed in a stationary building on a relay rack or MKM Transportable Module.

APPLICATIONS

- Improvement of train traffic safety on low-traffic lines.
- Increasing of line throughput.
- Reduction of running costs due to decreased amount of relay equipment.
- Improvement of equipment reliability due to automatic switching to redundant communication channel.
- Switching to modern communication means on sections equipped with semiautomatic block systems (transition from aerial communication lines).

IMPLEMENTED ON
>110 HAULS

CAPABILITY TO ARRANGE AUTOMATIC
BLOCK POST

IMPLEMENTED IN
7 COUNTRIES

OPERATING TEMPERATURE
RANGE FROM -60 UP TO +85°C

RELIABILITY AND SAFETY

Recommended for application on the **Russian Railways network**

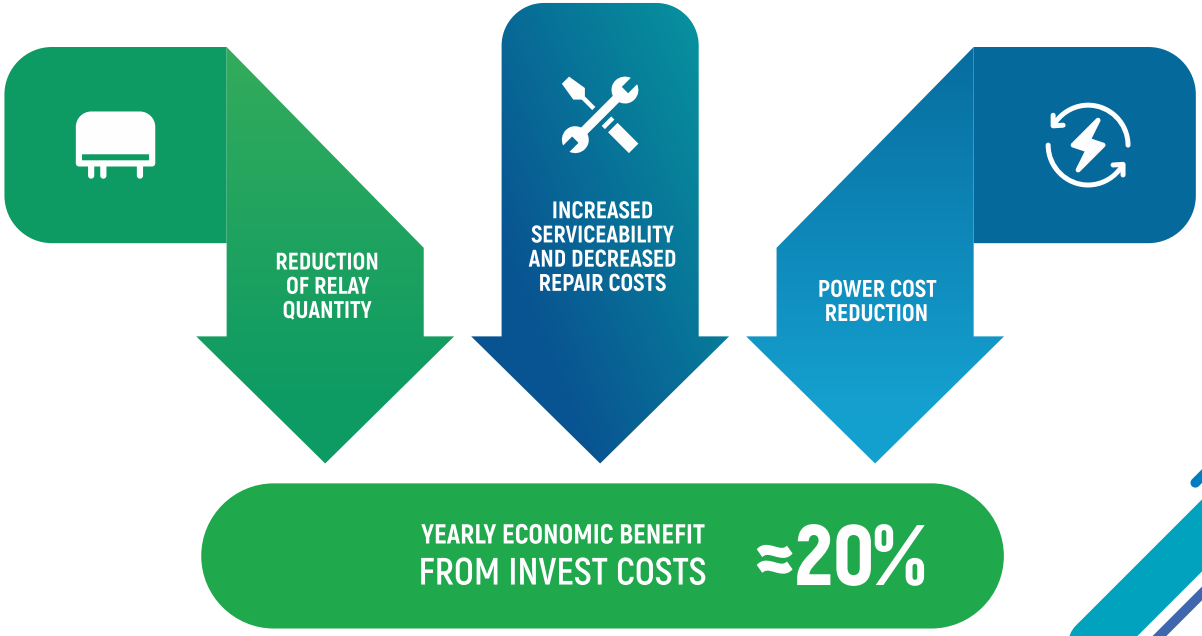
Automated communication channel redundancy

Award of the Russian Railways for the best quality of complex technical equipment

USER ADVANTAGES

- In-built diagnostics, event logging.
- Improvement of work environment due to logging of all personnel actions and command automation.
- Operation without adjustments.
- ULIS MPB Lab Set is available for personnel training.

MPB COST EFFICIENCY



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