Enterprise Safety Tool
as a system controlling technical
integrity of the mining industry plants

F@BE – FABRYKA BEZPIECZEŃSTWA

Evaluation of the results

Cloud computing

Data mining, database

PZU

PZU LAB

PZUW
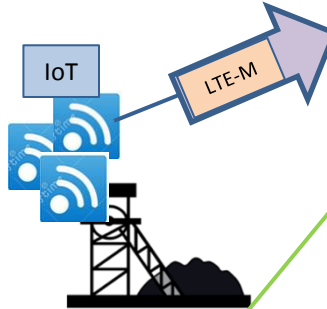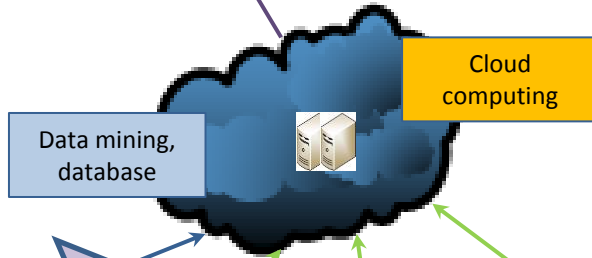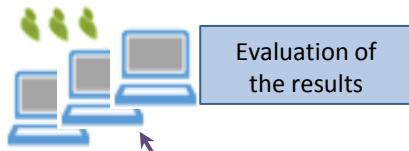
Diagnostics of the critical parameters
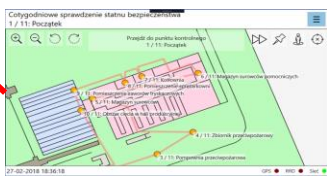
Fire Safety Solutions | Access control

Media | CCTV | Ventillation system

Detection systems | Safety systems

IoT

LTE-M

System overview

ESTools

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Cloud-based central part (application server, database, analytics module)

Web application (access for the managers and safety leaders)

Mobile application (carrying out audits, synchronizing data with a cloud, also allows for working offline)

Navigation between points located on a plan of a plant; tracking the audit path using both GNNS (GPS, Galileo, GLONASS) as well as internal navigation technology based on beacons and accelerometers built in the mobile device

Intelligent sensors at the plants with the wireless LTE-M transmission (IoT)

Two work modes: online (on-the-fly synchronization with a cloud) and offline (collected data is stored in device's local storage and dumped to a cloud when device gets connected to internet)

Detailed post-audit report including all the detected issues.

System functionalities overview

Innovatory Industry 4.0 approach - summary

✓ intelligent sensors installed in plants with wireless transmission (IoT)

✓ mobile devices supporting geolocalization (GNSS)

✓ RFID labels (NFC) at the measuring points

✓ cloud-based architecture (cloud computing), web application and a cross-platform mobile application (based on the Xamarin technology – available for Android, iOS and Windows)

✓ retrieving data from all the clients to build a 'big data' dataset, to allow for comprehensive data mining

✓ applying the Precedence Diagram Method (PDM) for the proactive prevention of the industrial accidents

✓ emphasis on cybersecurity

✓ integration of the automation devices, processing devices, data transmission and software - Industry 4.0

„SAFETY IN PROGRESS" ... A WIN-WIN SITUATION !!!