

WearHealth & E.ON



Source / Link: <https://wearhealth.com/>

Technology area:

- Artificial Intelligence
- Big Data
- Digital Twins
- IoT and IIoT
- Cybersecurity
- VR/AR
- Robotics
- Automation
- System Integration
- Smart Sensors
- Additive Manufacturing
- Other

Type of good practice:

- Company
- Project
- Initiative
- Programme
- Other

Target market segments:

- Discrete (smart) manufacturing
- Automotive
- Aerospace
- Metal processing
- Consumer goods
- Pharmaceuticals and chemistry
- Food and agriculture
- Health
- Textiles
- Others: Energy and Utilities, Oil & Gas, Mining

Summary:

WearHealth's AI and IoT-driven platform makes it easy to assess, compare, and predict job performance in an automatic and anonymous manner so that managers are empowered to improve productivity during repetitive manual tasks, to ensure safe work execution during hazardous tasks, and to increase worker engagement and wellbeing.

E.ON is an international electric utility company with more than 33 million customers across 30 different countries. E.ON strives to make safety and health as well as environment and climate protection an integral part of all its business activities. For Health this means that E.ON aspires to be an "Employer of choice" and foster a work environment that protects workers' physical and mental wellbeing. For Safety this means an ongoing commitment to a VISION ZERO to ensure the protection of everyone involved in their operations.

In order to improve the safety and health work conditions for its employees, E.ON engaged in a project with WearHealth.

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Detailed description

Occupational safety is a top priority at E.ON because many maintenance workers have to perform manual tasks in hazardous locations such as high-voltage areas and work at height. Consequently, it is of paramount importance that workers are fully alert as well as physically and mentally fit for work during hazardous tasks. Besides, some technicians work alone so it is crucial to ensure that they can receive timely support in case of emergency. To address this challenge, the platform and sensors of WearHealth were used to increase awareness and alertness with real-time biofeedback

Workers were equipped with a wearable device (chest strap) and a companion app to collect data and provide actionable insights. Using WearHealth's proprietary artificial intelligence algorithms based on ISO standards, workers could see their workload level and workload type (physical or mental) in real-time and get notified whenever their workload could lead to safety risks. On top of the real-time insights, workers could also access in-depth daily and monthly reports to reflect on their activities and promote a better work-life balance. Upon approval by the work council, team managers could see anonymized insights at a group level to open up the safety and health dialog with workers in a transparent manner. The interpretation of both real-time and in-depth insights depends on the work context. Therefore, they were correlated with operational tasks in hazardous and nonhazardous environments.

It is very important for lone workers to have the peace of mind that comes from knowing that if they suffer an accident the emergency response will be as fast and efficient as possible. Consequently, an AI-driven man-down system was incorporated into the companion app. If the system detects a potential emergency situation, such as violent movement followed by an extended period without motion, it sends an SMS alert to the emergency contact. The SMS alert contains both the location and the heart rate of the worker so the response team can act in a timely and effective manner. This was done respecting the highest data privacy standards. For example, GPS data was only made available in case of an emergency.

Beneficial Results

Apart from the obvious improvements of the health and safety working conditions, the project led to a number of other intangible benefits for E.ON, such as :

- 81% of the workers increased their awareness;
- 80% of the workers felt more supported by their employer;

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