

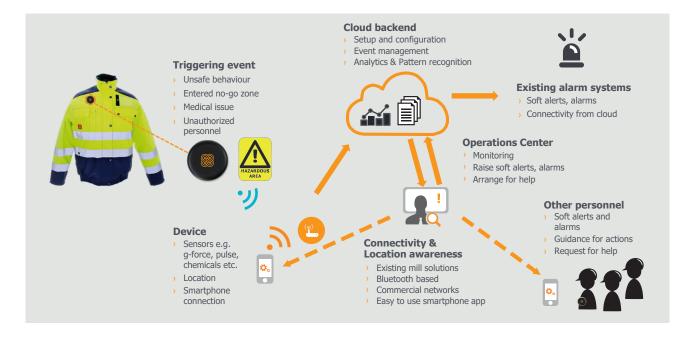
Symbio Smart Safety



Despite all normal safety measures taken - an employee, a contractor or visitor may eventually face safety hazards.

In every manufacturing or construction site there are danger areas due to risk of fall, heavy machinery, dangerous chemicals, radiation or excessive heat. Human behavior, carelessness or lack of information create further threats. The Symbio Smart Safety concept is built to improve productivity and work safety – to prevent accidents that could not be avoided otherwise. The concept consists of sensor(s) integrated in work wear and a platform that provides visibility and proactiveness for the control room.

In addition to safety-related benefits, Symbio Smart Safety can also improve employee wellbeing by collecting health data. Data can be used, for example, to notify the employee when a break is needed. Analysis of anonymized data can be used to improve productivity.



Increased benefits:

Compliance

- Avoid illegal workforce accessing workplace
- Compliancy reporting
- Follow regulations and GDPR

Wellbeing

- Control people flows
- Identify possible risks
- Enforce no-go zones
- Alert on abnormal situationsMedical alerts
- On-site visitor guidance

Productivity

- Identify bottlenecks and waste in processes
- Re-plan work and task structures
- Help planning shifts
- Improve productivity

Safety

- Avoid overburdening and stressful work
- Identify situations with harmful impact
- Help in improving health conditions

We look forward to co-creating what's next with You! Symbio contact: Tuuli Linnakko, Solution Lead, +358 50 410 1946



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SYMBIO

Conceptual solution overview

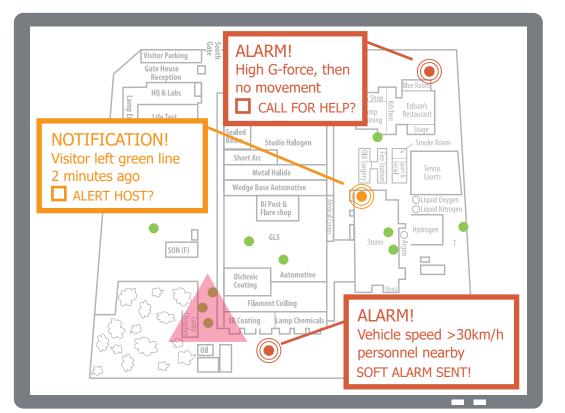
The Symbio Smart Safety concept is based on sensors that are connected via smartphones to a cloud platform. The platform is programmed and also learns to identify:

- Unsafe behavior
- Entering no-go zones
- Medical issues
- Unauthorized personnel

A control room dashboard provides situational awareness and alerts, these can be further integrated to existing alarm systems. The dashboard also provides support for managing people flows and personnel guidance.

Tailored for each customer

The customer solution is built on the Symbio Smart Safety concept and always tailored to purpose by using Symbio's service design methodology.



During the design sprint the solution is customized for a specific industry or a particular facility. The target is to build a first prototype together with customer's safety organization in a design sprint of 3 to 5 days.

The customer-specific Smart Safety service description is the sprint's main deliverable. In addition, we will identify the required data sources and analytics needed to enable actionable insights for safety, productivity and wellbeing. In the pilot phase the sensors are integrated to the platform, first versions of the user interface developed and analytical algorithms and models defined.



Why Symbio

Symbio has an extensive background in R&D and software engineering. We know our stuff whether it relates to embedded software, connected devices, cloud architectures or machine learning – or all of them combined. Symbio works with partners to deliver customer results. Our innovation team embraces Design Thinking and our quality assurance people ensure that the end result is flawless.

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