Exchange of good practices in OSH
Healthy Workplaces Campaign Partner event
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Health & Safety in a Digital Age

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SIEMENS
Ergonomics

Safety Monitoring & Risk Tracking

Audit & Assessments
Ergonomics
AI & Ergonomics

Preventive ergonomics based on Artificial intelligence

Global Pilot of the TuMeke App for ergonomic risk assessments
Virtual Reality

Digital Picture – “Jack”

- Allows changes to the ergonomics of the cell before it gets released into production meaning time and material cost savings are realized.

- Clash zones are identified within build processes to allow for layout and process changes if required.

- Weights and number of repetitions can be added in and cross referenced against EAWS guidelines.
Ergonomics

Jack improvements over the years….
Ergonomics

Jack improvements over the years…

Reality

Virtual Reality
Safety Monitoring & Risk Tracking
Safety Monitoring & Risk Tracking

Video Surveillance App
Remote monitoring of activities critical to safety including real time guidance and coaching

Detect person.
Is within no walk zone?
Is working at height?
Is wearing helmet?
Is wearing a harness?
Is there evidence of lifeline attachment?
Is lifeline attachment less than 75 degree?
Is analysis consistent for at least 5 frames?
Are there additional people within 4M?
Do they have helmets?

Algorithmic Flow
“Working at Height” Safety compliance

Immediate intervention
- Stop work
- Personal interactions with employees/contractor and supervisor
  - Awareness sessions to reach hearts & minds
  - Conversation between employee and supervisor
  - Trainings & inductions
  - Disciplinary consequences

Existing surveillance camera
Local Laptop with software analyzing live video footage
Safety Monitoring & Risk Tracking

AI4Safety@ Factories

Leveraging AI for EHS

Leverage video analytics, artificial intelligence and machine learning to proactively detect safety violations and generate alerts.

- Focus on high risk, high frequency use cases
- Alert local responsible team for immediate action
- Being developed in-house
- Scalable across locations
- Positive impact on human behaviour
Audit & Assessments
Remote Audits

Reviews, interviews and site tours in a virtual way

Use of data glasses in combination with SightCall software or smart devices supports flexibility, reaction speed, and transparency
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