



Exchange of good practices in OSH

Healthy Workplaces Campaign Partner event

Brussels, 13-14 June 2022

Health & Safety in a Digital Age

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Ergonomics



HEALTHY WORK PLACES INITIATIVE & COOPERATION WITH SIEMENS FOR A HEALTHY EUROPE

Safety Monitoring & Risk Tracking



HEALTHY WORK PLACES INITIATIVE & COOPERATION WITH SIEMENS FOR A HEALTHY EUROPE

Audit & Assessments



HEALTHY WORK PLACES INITIATIVE & COOPERATION WITH SIEMENS FOR A HEALTHY EUROPE

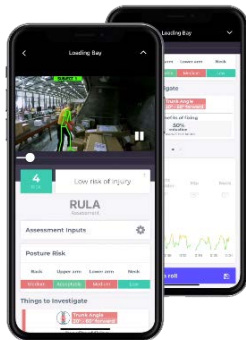
Ergonomics



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1. Record



2. Review



3. Deep Dive

AI & Ergonomics

Preventive ergonomics based on Artificial intelligence

Global Pilot of the TuMeke App for ergonomic risk assessments

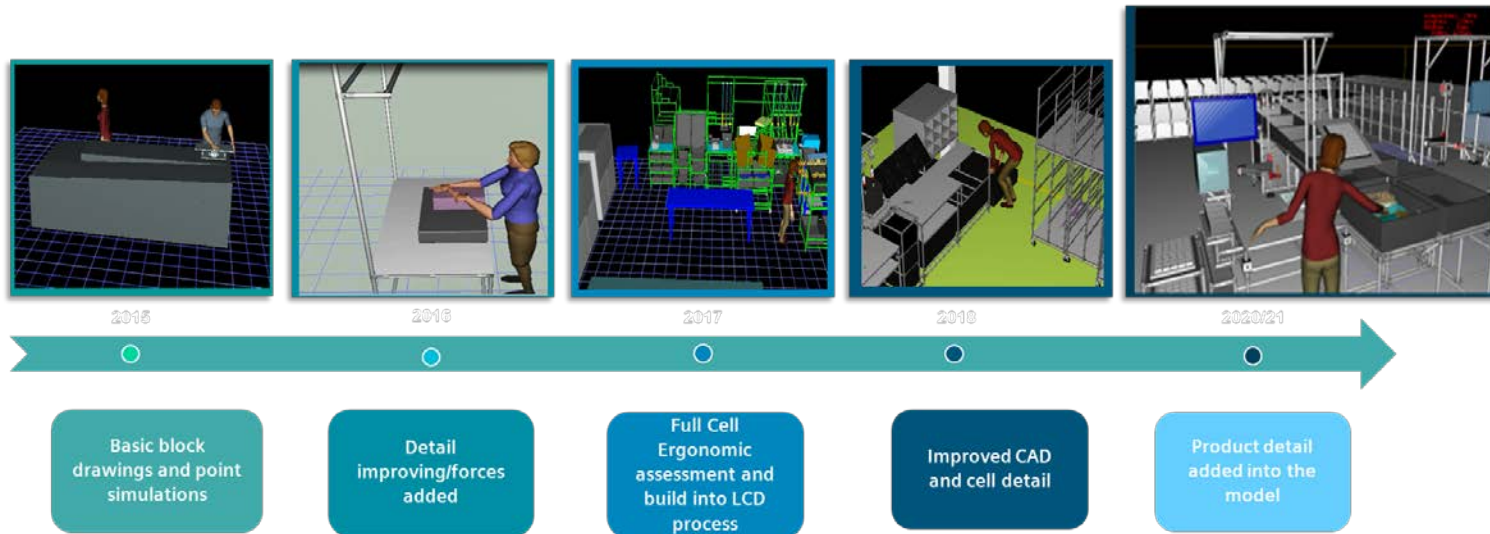
Virtual Reality

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



Jack improvements over the years....

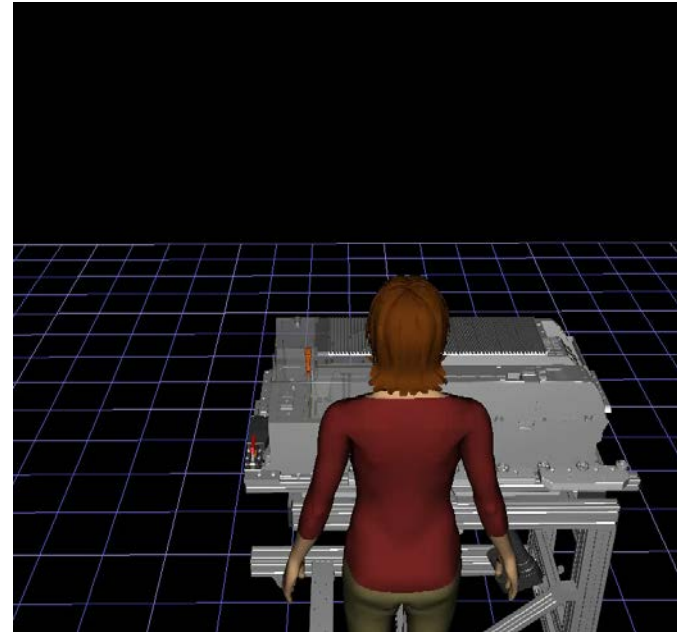


Jack improvements over the years....

Reality



Virtual Reality

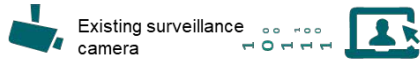


Safety Monitoring & Risk Tracking



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Safety Monitoring & Risk Tracking



Existing surveillance camera

1 0 0 1 1 0 0

Local Laptop with software analyzing live video footage



1
0 0
1
1 1 0 0
1



Algorithmic Flow
"Working at Height"
Safety compliance

- 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?



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

Video Surveillance App

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



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



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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

Contact

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