



# 6<sup>TH</sup> HSE MANAGER CONFERENCE 2019

The power of digital technology  
in health & safety management

April 09 – 10, 2019



# IMPRESSIONS

6<sup>th</sup> HSE Manager Conference 2019: The power of digital technology in health & safety management





Impressions of two days full of interesting learnings and mutual exchange. Watch the full video [here](#).



# MESSAGE FROM PETER CAVADA, HEAD OF HEALTH & SAFETY, HILTI CORPORATION

**Dear colleagues,**

It has been a great pleasure to host the 6<sup>th</sup> HSE Manager Conference in Stuttgart in 2019. Once again, we observed with great satisfaction that we could attract a growing number of international participants. Besides a stable group of recurring guests – our regulars – we also welcomed a significant number of new participants.

In 2019, we dedicated the Conference to a theme that is affecting every aspect of private and professional lives – digitalization. Under the umbrella theme of “The Power of Digital Technology in Health & Safety Management” we were inspired

by a diverse group of speakers coming from different industries: construction, health and safety, work psychology and IT.

Digitalization has and will permeate all areas of life and bring about significant changes. Especially in connection with health and safety aspects, many advantages and possibilities are about to open up to make construction sites even safer. On the other hand, we must also ensure that the employees who are confronted with these technical possibilities are properly prepared for the change.



We truly hope that all participants could take back to their jobs, insights and new contacts that further support digitalization endeavours in construction. The positive feedback we have received so far is a great indication of the quality this HSE platform offers and we are already looking forward to welcoming you to the 7<sup>th</sup> HSE Manager Conference in 2021.

Sincerely yours,  
Peter Cavada



# DIGITAL TECHNOLOGIES: NEXT LEAVER FOR H&S IN CONSTRUCTION?

## 5 key take-aways

Andreas Bong enlightened us with thoughts of new technology. He reminded us that technologies are here and they are developing fast, but not all advanced technology is relevant and applicable, so we need to make clever choices.

As an example he mentioned the opportunity today to survey a construction site through for example Camera Technology, Machine Learning & AI. As an outcome, heat maps could be created which lead to real-time alerts & information.

The key is to find technology that can support creating a hazard free working environment. In

order to do this, all potential hazards have to be addressed from early on. This can be done by capturing as many near misses as possible.

Technologies are already available – wearables, low power edge computing, communication networks. And the key is to leverage all these to change the behaviour of workers on the job site.

Key technology trends are shaping construction. In 1910, Villemard envisioned the Robotics in construction. 100 years later they are here – Let's not take another 100 years to apply them.

**Dr. Andreas Bong**

Head of Corporate Research & Technology  
Hilti Corporation





**Professor Andrew Sharman**

CEO of RMS  
Author and Professor



# WE ARE NOT ROBOTS

## 5 key take-aways

Andrew Sharman started off by truthfully stating that he is a bit worried of Artificial Intelligence (AI), and we should be too. After all we are only human.

The reality is that robots are coming and we need to be ready, but they won't take over the world. Yet!

People are becoming more comfortable with complex technology, to the degree that we expect it in our lives. There are more than 1.2 million robots in the world today. Nearly everyone has a robot in their pocket or by their side.

To get ready, organizations need to embrace technological change by introducing robotics and digitalization. Leaders need to have one eye on technology and the other on the people. Robots can help to become more precise on the job site, but the fact is that until robots take over the world we still have a lot to do.

One important message to remember is not to lose sight of the human being while embracing technology. It is still human behaviour that makes a difference after all.

# ON-SITE DIGITAL APPLICATIONS: HOW TO IMPROVE HEALTH AND SAFETY ON OUR CONSTRUCTION SITES

## 5 key take-aways

Kajsa Simu gave a clear message reminding us how important it is to have our loved ones come home safely from work.

The challenge we face today is the interface between man and machine. However, with correct information we can connect to smart devices and use this to support safety on the job site.

Machines can be used to clearly help with tasks, example using drones to estimate how much rock needs to be excavated on a site. Computer vision can identify if workers are using safety equipment.

Geofencing is used to increase the safety barrier between man and machine.

Positioning of individuals can help us identify where people are. In case of an emergency it is possible to see who is / is not safe, and where they are. This can further support elements of creating safety by avoiding hazards & accidents.

Kajsa is convinced that in the next 5 years fatal accidents will decrease due to connecting technology within the working environment.

## **Dr.-Ing. Kajsa Simu**

Operations Manager, NCC AG  
Senior Lecturer Luleå University of Technology



# CAN TECHNOLOGY CONTRIBUTE TO A SAFER WORKPLACE? PUTTING IOT AT THE CENTRE OF WORKER SAFETY

## 5 key take-aways

Colin Williams informed us that Digitalization is the digital transformation of the future. He further emphasized that a sustainable infrastructure is essential for driving digital transformation, otherwise it will crumble.

Can technology keep you more safe? YES!  
By using technology, we can make the right decisions and create a safety culture.

People on job sites occasionally don't feel completely safe and this can and must change. If done in an empathetic way, technology can help this change.

Looking at a vision: An asset management system that controls and manages the auditing, maintenance and service of equipment. As well as including PPE data and sensory and adding "the weather company". All this working together can make change.

Technology is out there & the Construction Industry should jump on board. We should attack the problems in an agile smaller manner. Take the step, cause we should. It's time to be safer and stay well.

## Colin Williams

IBM Executive, Internet of Things,  
Industrial Sector SME for  
Health Safety and Environment



workers



## **Veronika Jakl**

CEO of Arbeitspsychologie Jakl  
Work Psychologist



# DIGITALISATION FROM A PSYCHOLOGICAL PERSPECTIVE

## 5 key take-aways

Veronika Jakl addressed the topic of how technology can create psychological social risks in the workforce.

Technology influences the change of working habits. Site workers have to adapt to these technological changes to keep up, but this is leading to digital stress, such as Techno invasion & job insecurity.

In the last 25 years there has been an increase in the speed of life, as a consequence this has led to inattention, wrong decision making, and wrong priority focus. With robots coming, we as humans

should be able to focus on creative topics and let robots take on the riskier and physically more demanding tasks.

Two things are important to remember when using robots within the workforce. Usability – they should be adaptive to personal requirements. Acceptance – can the robot be accepted as a colleague.

Digital learning is the key as well. And we need to prepare for the digital change that is coming. Not only the young and highly qualified demographics, but everyone.

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## MENU

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