Safety and health at work is everyone’s concern. It’s good for you. It’s good for business.

Smart PPE

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What is smart Personal Protective Equipment?

- CEN Terms and definitions document is under development – publication foreseen Q3 2019
- Smart =
  - With electronics?
  - With sensors?
  - Automatic reaction to environment?
- PPE versus system
- Active versus passive
Examples

- HiVis with LED
- Helmet with LED
- Safety glasses with AR
- Cooling/heating vest
- Inlay sole for footwear (heating, tracking, …)
Examples

- Gloves with heating
- Gloves with GPS
- Gloves with infra red sensor for heat (firefighters)
- Bicycle helmet – airbag
- Fall protection – vest with airbag
- RFID in PPE – several applications
- Use of VR for training
- Helmet with detection system (e.g. mining / construction)
- Exoskeleton – PPE or not?
Some challenges

- **How to select? Which functionalities?**
- **Use**
  - Training wearers
  - Privacy
  - (Cyber) security
  - Reliability
- **Care and maintenance**
  - Washing / cleaning?
  - Batteries?
  - Fully integrated or (partially) removable?
Does the market trust smart PPE/PPS?

- Certification
  - Initiative ‘good practice / roadmap’
  - Survey for manufacturers ongoing (https://www.surveymonkey.de/r/GWHTBSM)
- Standards
  - Standardisation request M/553
- Compatibility

Uncertainty for suppliers

- Legislative framework
- Who is the manufacturer?
A change in the way of working / behaviour might be necessary

- System versus piece of equipment
- Over-confidence is a risk
- Overload of information for worker – he/she still must be able to do the job
- Data collection on site – what will be done with the data?
- Training !!!
- Smart PPE helps training / correcting behaviour of person
- Value of equipment
- Care and maintenance of equipment different
- Do we accept failure?
- 1 product = 1 company responsible for safety of product? Which one?
- Cooperation PPE – working equipment / machinery – person
Thank you for your attention

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