

HSE Europe – The data challenge of the future

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Who are we?- Keller

Every day millions of people around the world live, work and play on ground prepared by Keller

Our purpose

To help create infrastructure that improves the world's communities

Our vision

To be the world's leading geotechnical contractor

Our values

- Integrity
- Collaboration
- Excellence



Three divisions

21 business units

180
branches



1.8bn
revenue



10,000
employees



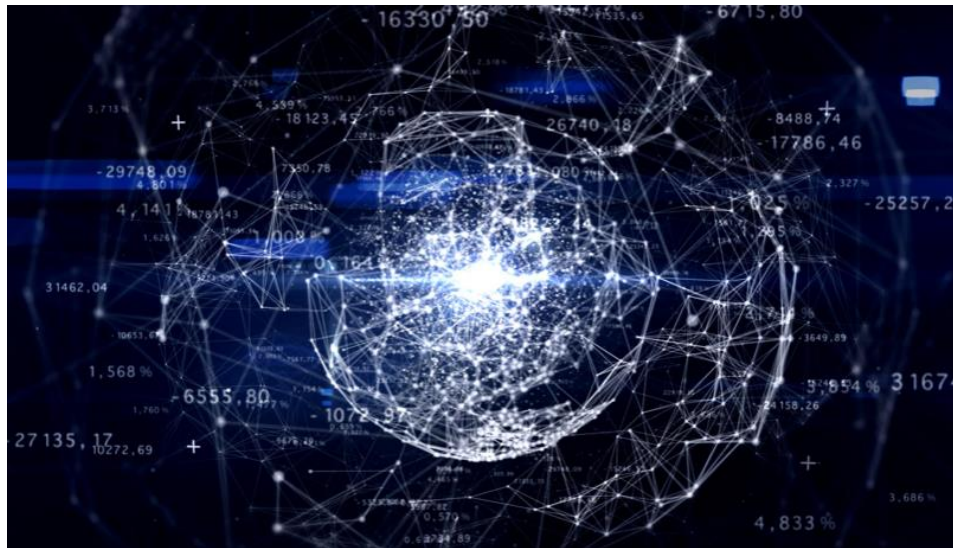
6,000
contracts pa



Data and Digitisation

‘Facts and statistics collected together for reference or analysis’- Oxford press

‘The conversion of text, pictures, or sound into a digital form that can be processed by a computer’
- Oxford press



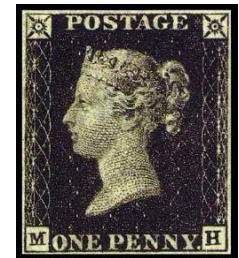
Integration of digital technologies into everyday life by the digitization of everything that can be digitized. ...

Historical Perspective

- Poor law
- Factories Act
- HSW Act
- European risk based legislation (six pack)
- What next ?



- Victorian Era
- GI generation
- The silent generation
- Baby Boom
- Generation X (Thatcher's children)
- Millennials (my children)
- Generation Z – children of the internet?
- Generation C or the Connected

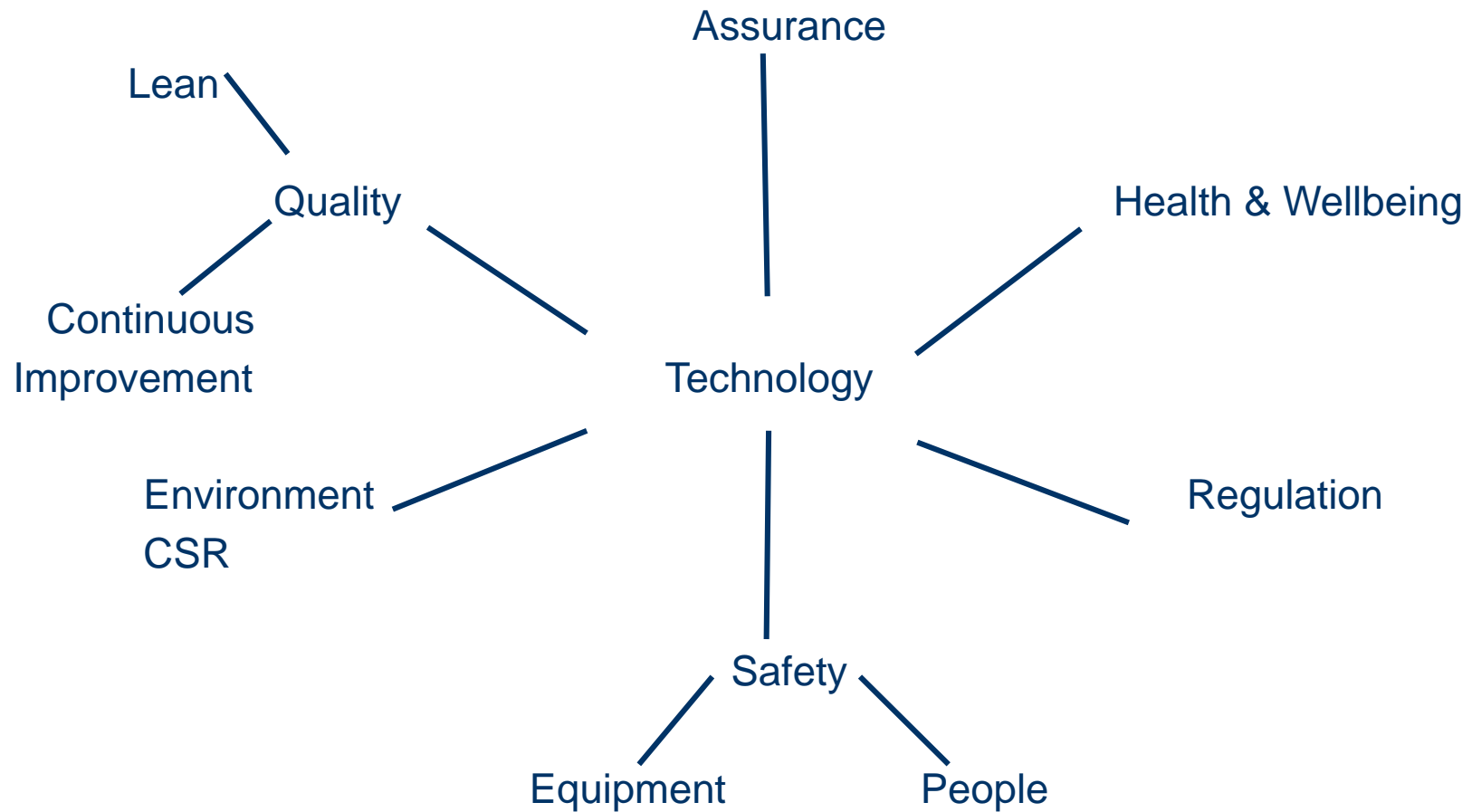


How is the landscape changing

- Adaption - people adapt quicker to emerging and disruptive technologies - UBER
- ‘Internet of things’ estimated 50 billion IoT Sensors by 2020 and more than 200 billion “Things” on the Internet by 2030
- Application Programming Interface (API) - joining things together
- Embracing the remote or peripatetic labour force
- Augmented and Virtual reality - training
- Enhanced user experience - smartphone
- Big data - so much information is available
- Artificial intelligence - change the employment landscape
- Genetic tracking - predictive identification
- Bio-sensing - nanotubes



The HSE Interface



Health, safety and environmental risk management fundamental to success

Developing risk understanding | Putting in common systems | Aligning culture & goals | Assuring systems



2011

- New Director HSE
- 'Think Safe' launched
- First safety conference



- Group level resourcing
- First full Think Safe assessment
- HSE portal

2012

- Five-year strategy
- Safety improvement plans
- Assurance regime
- First alerts system
- Monthly reporting
- Think Safe Rules



2014

- Occupational Health Policy
- Sustainability Policy
- Think Safe Policy and guidance
- Safety culture survey

2015

- Integration of Quality with HSE and quality and continuous improvement focus



2016

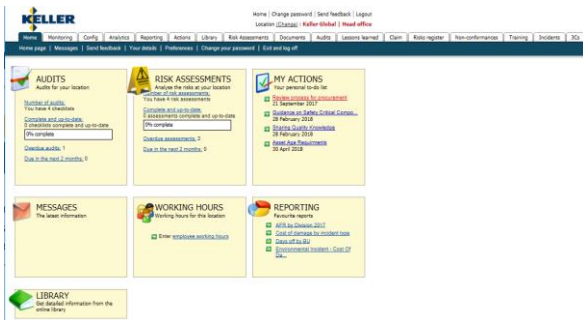
- Integration of Quality with HSE
- Quality and continuous improvement tools
- Sustainability programme (e.g., Carbon Disclosure)



2017

- Digitalisation

Technologies



Data collection and analysis



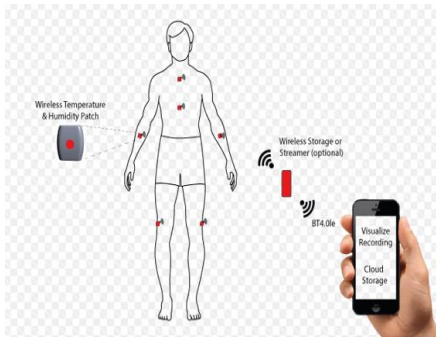
Biometric scanning for access control and hours monitoring



Automated and GPS machines



Environmental monitoring



Human Health Monitoring

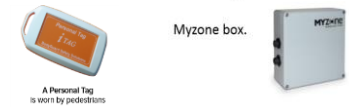


BIM



Site cam - records

MYZONE – worker alert system



Myzone boxes will be mounted to the rigs.

The boxes are programmed to emit a signal which can be adjusted to different exclusion zone lengths.

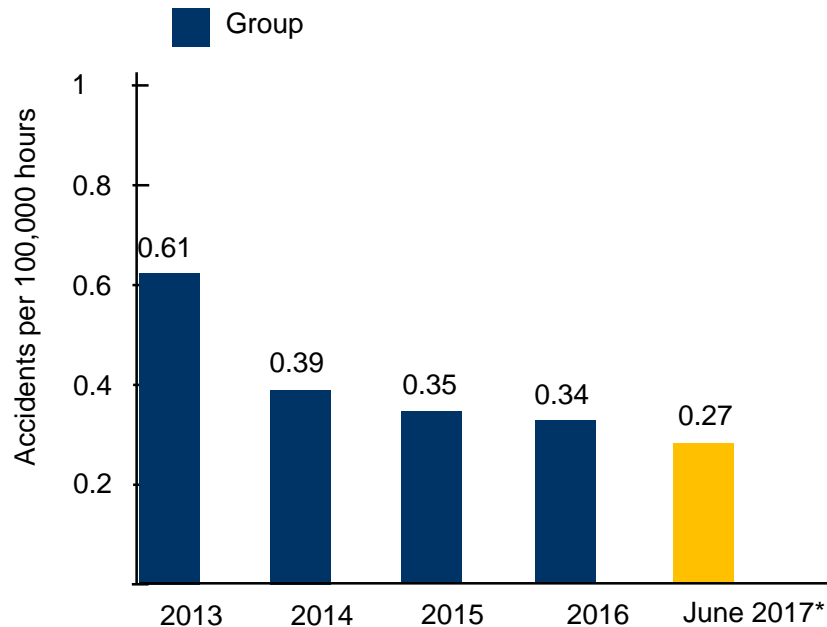


Safe zone working

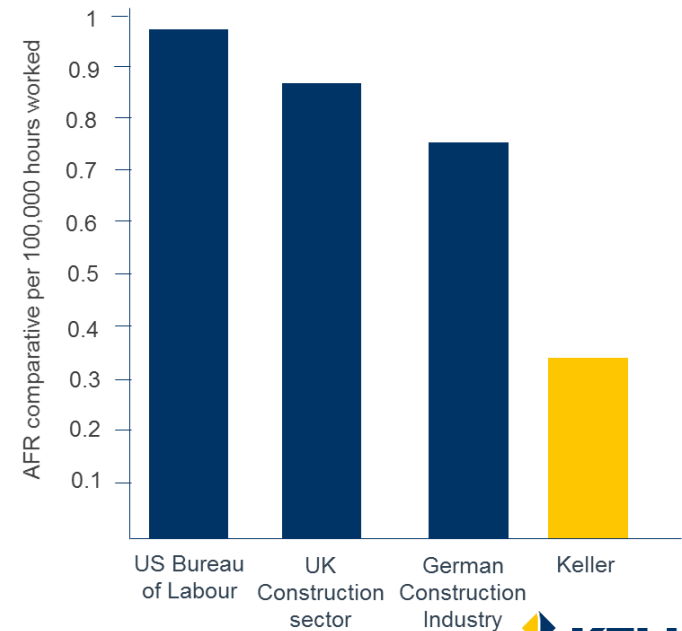
Safety performance

- Accident Frequency Rate at all time low
- Since introduction in 2013, our Think Safe programme has helped reduce accidents in our business by around 77%
- Benchmarking shows our performance is around 50% better than UK construction and specialist construction sectors

Accident Frequency Rate (AFR)



Comparative AFR 2015/16





Quote of the Day- Forbes

People who lose their relevance get stuck in the past because they're no longer in the present moment.

Marc Benioff,
Founder of Salesforce