

Unlocking the potential of health and safety data – the Lloyd's Register Foundation and HSE 'DISCOVERING SAFETY' programme

Every year, huge amounts of incident investigation findings and operational health and safety data are collected globally. The Lloyd's Register Foundation (LRF) and the Health and Safety Executive (HSE), supported by the Thomas Ashton Institute are running an ambitious new programme, 'DISCOVERING SAFETY' which aims to substantially improve health and safety and ultimately save lives, particularly in poorer or developing nations.

The team have been working with industry, trade groups, international networks, governments, academia and other stakeholders to identify health and safety challenges and opportunities where deeper insights from data could make a significant impact. Important questions emerging from this work include 'How can we learn more about the root causes of product safety failures?' and 'What are the causes and circumstances leading to loss of containment accidents in high hazard industrial sites?'

These and other questions will be explored in a multi-disciplinary effort which will develop new techniques to aggregate and analyse health and safety data from sources around the world. The work will understand how to access and use the data available and apply leading expertise in data science, data analytics, artificial intelligence and machine learning. Much of the work will be underpinned by advances in areas such as text mining and language processing, which are expected to have important spin-off benefits.

The DISCOVERING SAFETY programme will build on the research outcomes to make a practical difference, applying the findings to international improvement initiatives, education and commercial tools and services.

By exploiting the value that data can bring to health and safety in a global context, DISCOVERING SAFETY will ultimately benefit both emerging and mature economies by reducing fatalities and injuries caused by industrial accidents and ill health. Organisations from all parts of the world will be able to develop strategies to sustain health and safety performance and to continue to make improvements to ensure longer term benefits and impact.

The team will be providing regular updates to the wider community. For more information please email: discoveringsafety@hse.gov.uk

Dr Ruth Boumphrey, Director of Research, Lloyd's Register Foundation welcomed the initiative:

"Everybody deserves to be safe at work. This programme will help us learn lessons from data and share knowledge between industries and across

international borders. The more we can share, the better the insights, the safer the workers. There are huge technical challenges in this programme but the rewards will be great."

Professor Andrew Curran, Chief Scientific Adviser, HSE, agrees:

"Wouldn't it be fantastic if people could make decisions, safe in the knowledge that, "No workers were harmed during the making of this product or service"; this innovative Discovering Safety programme will use the combined expertise of HSE and the University of Manchester (through the Thomas Ashton Institute) to move us closer to this goal".

Notes to Editors

About the Health and Safety Executive

The Health and Safety Executive (HSE) is Britain's national regulator for workplace health and safety. We prevent work-related death, injury and ill health through regulatory actions that range from influencing behaviours across whole industry sectors through to targeted interventions on individual businesses. These activities are supported by globally recognised scientific expertise.

About the Lloyd's Register Foundation

The Lloyd's Register Foundation is a UK charity established in 2012. With our mission to protect the safety of life and property, and to advance transport and engineering education and research, the Foundation has an important role to play in meeting the challenges of today and the future.

We meet our aims by awarding grants, by direct activity, and through the societal benefit activities of our trading group, which shares our mission. Through our grant making we aim to connect science, safety and society by supporting research of the highest quality and promoting skills and education.

About the Thomas Ashton Institute

The Thomas Ashton Institute draws upon the combined knowledge and experience of the University of Manchester and HSE to deliver research, learning and regulatory insights that widen the global conversation to enable a better working world.

Building upon the established reputation for excellence of its founding partner organisations, the Institute will inform and improve industry practice and regulatory intervention, helping to deliver safer, happier and healthier workplaces around the world.