

# Managing infrastructure safety requires long-term focus

In complex infrastructure environments, a commitment to safety must be lived every day in order to provide a safe workplace, write Shannon O’Keeffe, Director, Social Sustainability, William Phillips and Nicholas Rivera, Senior Associates, Asset Management at IFM Investors



**Shannon O’Keeffe**  
Director, Social Sustainability

The United States’ Occupational Safety and Health Administration (OSHA) estimates that the indirect costs of poor workplace safety are at least 2.7 times the direct costs due to:

- Time lost from work stoppages and investigations
- Training and other costs associated with replacing injured workers
- Loss or damage to material, machinery, and property.



**William Phillips**  
Senior Associate

Achieving a high level of Occupational Health & Safety (OH&S) within a company requires a shift in company culture, and changes to the behaviours and mindsets of everyone at the site from being reactive, after an injury or illness has occurred, to identifying and fixing issues before they may cause an injury or illness. This requires a commitment to continuous improvement through engagement with multiple stakeholders over extended periods of time to help ensure all those who interact in our workplaces understand our interdependence in achieving safety outcomes. External factors also present challenges to infrastructure assets maintaining safety standards, as they require both companies and people to adapt to maintain operational resilience. The COVID-19 pandemic, and the increasing frequency and exposure to severe weather events arising from climate change, are both prime examples.

Some of the key themes we believe are impacting the long-term management of safety at global infrastructure assets include:

- Facilitating a consistently strong safety culture across assets regardless of the local context
- Climate change impacts safety
- Technology can enhance safety
- Strong safety cultures can deliver better business performance.

## Facilitating a consistently strong safety culture across assets regardless of the local context

IFM expects its portfolio assets to set and enforce high safety standards. A key challenge faced by some of our assets is local environments where the safety culture is not as advanced and where there are multiple language and literacy levels present on site.

For example, developing countries have different levels of maturity in legislating

for workplace safety and workers may have less training and education about creating a strong safety culture. In some regions, for example, it is not compulsory for contractors to wear Personal Protective Equipment (PPE) when operating heavy machinery and the required PPE may not be supplied by the employer.

Such divergences in safety maturity across countries present challenges for asset managers with global infrastructure portfolios who want to achieve consistent high safety standards globally. To help overcome this, we believe all infrastructure assets should have a long-term strategy and training program to achieve a high safety culture that may require differentiation from the local environment. Each asset’s approach will have similar fundamental steps but should consider the very different starting point they are moving from to inform how best to achieve outcomes. This approach is likely to provide a much better chance of successfully embedding long term changes in behaviour. Over time this should contribute to improving the local workplace culture.

## Climate change impacts safety

Climate change is increasing the severity of weather events that can physically affect infrastructure assets. In response, assets are having to adjust their risk management and existing controls to help ensure they can continue to operate at the same level safely.

For infrastructure asset managers, this means adapting existing assets so that they can withstand more damaging and frequent extreme weather events and making sure that new infrastructure is built with climate considerations in mind. This is in line with the ninth UN Sustainable Development Goal to build resilient infrastructure.

Advances in computer modelling are helping infrastructure assets address potential weather impacts that pose risks to the safety of the working environment. For example, ports may consider implementing technology that models how and where heavy winds impact containers on site. This would allow them to proactively address any heightened safety risks from container falls, as winds become increasingly severe due to climate change, and a one-in-100-year storm could become one-in-ten-year event.

## Technology can enhance safety

The current era of dramatic technological change provides the potential for a step change in the way safety is managed across infrastructure assets. This is because technology can create new ways of implementing and monitoring safety behaviours and can, at times, help prevent safety incidents from occurring.

Smart electronic monitoring systems are used to improve security and safety across many of our airports, for example, by helping identify anomalies in passenger movements through terminals which could be connected with suspicious activity.

Intelligent transport systems (which can include a combination of technologies such as road sensors, electronic signs, variable speed signs, automatic lane management/closure systems, electronic signage, CCTV cameras) can significantly enhance safety on our roads. This was demonstrated when Indiana Toll Road implemented edge-computing from California-based Extreme Networks Inc. to reduce the number of traffic incidents on the route by 30%.

Other examples of safety-enhancing technologies across our infrastructure assets include the use of drones to monitor key electricity grid assets and the use of infrastructure monitoring sensors to indicate major changes to elevated road structures.

## Strong safety cultures can deliver better business performance

Whilst investments in safety help improve the overall physical and psychological wellbeing of workers, customers and others who rely on our infrastructure, they can also safeguard returns for investors by helping to ensure that capital is proactively invested in prevention, rather than paid in fines, compensation and repairing damage. A safe workplace is one that values its workers – workers who know they are valued are more engaged and higher engagement can translate into stronger business and investment performance.

### FOOTNOTES:

<sup>1</sup> OSHA Safety and Health Program Management Guidelines