Editorial

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Forensic engineering is the science of failures. It is a discipline that investigates the events that led to the failure of a structure, be it a bridge, a tunnel or a building. These failures can be due to natural disasters, human error, or design flaws. The insights gained from these failures can be used to prevent similar failures in the future, and to improve the safety and reliability of structures.

The insights are not only relevant for high-hazard industries but also for the construction industry. A set of questions was developed to profile organisational risk management resilience of organisations. Hopefully, in this way the valuable lessons from this research can be used to decrease the probability of future disasters.

Geotechnical failures are an important area within forensic engineering (see e.g. Sivakumar Babu (2016)) especially in countries with soft soils, like the Netherlands. Korff (2017) presents a number of Dutch failure case studies from deep excavations and tunnel projects. Based on risk management principles and insights from the theory of learning, the author proposes approaches to learn from these failures.

Finally, Baker et al. (2017) explain factors that influence the decision to demolish or adapt an existing building. They focus on five case studies, where factors like heritage value, architectural significance and building condition are included. This assessment of the condition of existing buildings is a relevant field of expertise within forensic engineering, where knowledge of past building codes and practices, together with a clear understanding of structural behaviour, is of utmost importance. Authors are encouraged to come up with case studies and approaches for this relevant structural condition assessment, which fits neatly within the scope of this journal.

Several times, I have heard people stating that we should learn more from other industries. This issue of Forensic Engineering actually enables us to learn from other domains, and provides lessons to avoid similar failures in future. Every reader is challenged to decide for themselves to what extent the highlighted lessons can be implemented in their own daily practices.

REFERENCES


Korff M (2017) Learning from case studies and monitoring of Dutch tunnel projects. Proceedings of the Institution of Civil Engineers...

