

Roundtable session

Revisiting the foundations of safety science in a world of change – interdisciplinary, basic and applied all at once?

Chair: Kenneth Pettersen Gould

Participants: Jan Hayes, Jean Cristophe LeCoze, Nick Pidgeon and Teemu Reiman

In 2014 the journal Safety Science published a special issue on the Foundation of Safety Science. Now, ten years after, we would like to bring foundations back on the agenda during SRAE/ESREL. A lot has happened since then, and we find ourselves in a different situation than we were ten years ago. Safety is increasingly recognized as a field in itself, with its own distinct theories, grounded in a multidisciplinary perspective. This is evidenced by recent publications of books promoting safety science as a discipline, and by the fact that safety professionals recognize safety as something more than just a practice. In other words, hard work has strengthened the networks of researchers and practitioners over the course of a decade. At the same time, the decade has cumulated in rapid and simultaneous changes in the landscape of risks with high expectations and demands on us as a community, from systemic to existential risks in global trends whose manifestations can no longer be ignored (e.g., cybersecurity, global warming, artificial intelligence, pandemics, aging, inequalities, polarization). With all this as a background, we are challenging the safety and risk communities to continue taking a “step back” and reflect once more on our scientific foundations. All knowledge claims about safety are based on some form of foundational assumptions, rationality and logics, which is a particular challenge in a multidisciplinary and interdisciplinary field. At the same time, the field is asked to attain a practical goal of safe performance, being relevant for the context in which the knowledge is applied. Despite some significant steps taken, foundational issues remain less thoroughly explored by the safety field than the foundations of related disciplines such as sociology, psychology or engineering. Nor are they usually discussed in journal publications and presentations at scientific conferences. Where does safety stand as a particular science and what fundamental issues are crucial for us to deal with? Are there similarities between safety and developments within the risk field? Should safety science be fundamentally and ultimately practical? The aim of the session is to continue supporting broadly foundational issues across the disciplines contributing to safety science and to continue a dialogue to establish and further strengthen these within the field.