

17. december, kl.13.00-16.00

Seminar: Measuring safety



How can safety be measured to support the continuing improvement of safety? Erik Hollnagel and Sidney Dekker argue that our wellknown and widely implemented measurements tend to be misleading and thus an unfortunate waste of the limited resources dedicated to safety. We measure failures rather than successes, and we focus on what we believe to be precursors of accidents, but rarely are. Are there better and more useful ways of measuring safety?

SimTrans, DHFN and IDA-Risk have invited the two leading safety experts to present their views and suggestions and debate their usefulness and implementations with a representative from CODAN, an insurance company strongly emphasizing both measurements and improvements. We also invite the audience to participate in this discussion.

Praktisk information

Hvornår: Onsdag d. 17. december, kl.13.00-16.00

Hvor: Herlev Hospital, Lille auditorium, etage 2. Ind gennem hovedindgangen til forhallen i stueetagen og op ad den brede trappe til Auditorierne.

vedr parkering: www.herlevhospital.dk/.../Oversigtskort/

Arrangører: SimTrans (www.simtrans.dk), Danish Human Factors Network (www.dhfn.dk) and IDA Risk (<http://ida.dk/netvaerk/fag/sikkerhed-og-risiko/selskabet-risikovurdering-0>)

Tilmelding: Senest d. 10. decenber på <http://www.simtrans.dk/events.htm> eller via IDAs hjemmeside.

Deltagelse er gratis for medlemmer af SimTrans, DHFN og IDA. Ikke-medlemmer betaler 100 kr., som medfører ét-års personligt medlemskab af SimTrans.

Program

- 13.00 – 13.10 Welcome and intro, Profeser Henning Boje Andersen, DTU Management
- 13.10 – 13.40 Why do we wish to measure safety? Professor Erik Hollnagel, University of Southern Denmark
- 13.40 – 14.10 Measuring safety: The absence of negatives or the presence of positive capacities? Professor Sidney Dekker, [Griffith University](#) Australia
- 14.10 – 14.20 We need a qualitative measure of safety, Henrik Sønderby, Claimstop Advisor Codan Insurance
- 14.20 – 14.40 Coffee break
- 14.40 – 15.20 On-stage debate on how safety can be measured between Hollnagel, Dekker and Sønderby.
Moderator Peter K. Sorensen, Vice President FORCE Technology
- 15.20 – 16.00 Interaction with the floor and the three debaters. Moderator Peter K. Sorensen, Vice President FORCE Technology

Information on presentations

Why do we wish to measure safety?

Professor Erik Hollnagel

Anything can be measured, so the question should not be whether something can be measured but why something should be measured. In the case of something = safety, a further question is what we mean by safety.

The traditional view, Safety-I, defines safety as a condition where there are as few adverse events and/or outcomes as possible. The purpose of safety management is therefore to prevent adverse outcomes from occurring. The proper measure of safety should therefore be how many adverse outcomes that were successfully prevented. (This is of course a paraphrase of Karl Weick's aphorism that "reliability is a dynamic non-event".) But strangely enough, safety has traditionally been measure by how many adverse outcomes that occurred.

The new view on safety- Safety-II, defines safety as a condition where as much as possible goes right. The purpose of safety management is therefore to make sure that everyday work succeeds. The proper measure of safety should therefore be how many times something goes right. Doing so is not only easy, but may also have considerable synergistic effects

Erik Hollnagel (Ph.D. University of Aarhus, Denmark) is Professor at the University of Southern Denmark and Chief Consultant at the Centre for Quality Improvement, Region of Southern Denmark. Erik is also Visiting Professorial Fellow, University of New South Wales (Australia), Visiting Fellow at the Institute for Advanced Study, Technische Universität München (Germany), and Professor Emeritus at the Department of Computer and Information Science (IDA) at Linköping University (LIU), Sweden.

Erik Hollnagel is an internationally recognised specialist in the fields of resilience engineering, system safety, human reliability analysis, cognitive systems engineering, and intelligent man-machine systems. He is the author of more than 500 publications including twenty-two books, articles from recognised journals, conference papers, and reports.

Eric Hollnagel is founding Editor of the International Journal of Cognition, Technology & Work, and member of the editorial boards of Safety Science, Theoretical Issues in Ergonomics Science, IEA Journal of Ergonomics Research, International Journal of Virtual Technology and Multimedia, the Advisory Board of Cognitive Science Quarterly, the International Consultant Board of 'Le Travail humain', and the Advisory Committee for the Journal of Korean Nuclear Society.

Measuring safety: The absence of negatives or the presence of positive capacities?

Professor Sidney Dekker

We have long measured safety as an absence of negatives—particularly the easily measurable and manipulable absence of minor injuries and incidents. We have been taught, falsely, that such absence has predictive power for bigger accidents. Much data shows that it hasn't: declines in minor incidents are not generally accompanied by a decrease in major events, fatalities and accidents. We spend much time counting what we can count, but not what counts.

The overarching philosophy of traditional safety management is that people are a problem to control. An absence of negatives (nonconformance, violations, incidents) putatively shows that we have such control. Our fear of accidents has become supplanted by a fear of non-compliance.

What if we instead see people as our essential resource to harness, and safety as the presence of positive capacities and capabilities? That is, the ability to make things go right—despite the rules, despite the organization, technological glitches, resource constraints and multiple goal conflicts. Safety interventions can then become based on meaningful evidence, and target the context surrounding people's work, rather than telling everybody else to behave and try a little harder.

Sidney Dekker (PhD Ohio State University, USA, 1996) is professor at Griffith University in Brisbane, Australia, where he runs the *Safety Science Innovation Lab*. He is also Professor (Hon.) of psychology at The University of Queensland, and Professor (Hon.) of human factors and patient safety at Royal Children's Hospital in Brisbane. Previously, he was Professor of human factors and system safety at Lund University in Sweden. After becoming full professor, he learned to fly the Boeing 737, working part-time as an airline pilot out of Copenhagen. He has won worldwide acclaim for his groundbreaking work in human factors and safety, and is best-selling author of, most recently, *Second Victim* (2013), *Just Culture* (2012), *Drift into Failure* (2011), and *Patient Safety* (2011). His latest book is *Safety Differently* (2014). More at sidneydekker.com