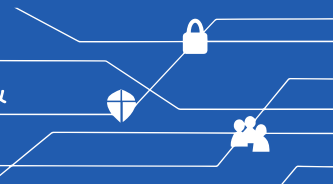# ETH zürich

Master Thesis: An Investigation of "Positive" Cyber Incident Reporting

Prof. Dr. Verena Zimmermann
Security, Privacy and Society
D-GESS, ETHZ

Security
Privacy &
Society

Background: Cyber incidents are on a high level and affect organizations and critical infrastructures across all industries. To analyse, compare and ideally learn from cyber incidents, organizations often have the legal obligation to report cybersecurity incidents. In addition, organisations may collect cyber incident data themselves for deriving and evaluating internal measures. While this information is highly valuable, it is not always available to the public or research. In addition, most often negative outcomes, i.e., successful attacks or breaches, are reported whereas there is scarce data on the successful counteracting of attacks and the factors contributing to it. And there is even less data on "positive" cybersecurity incidents, events, or achievements, i.e., secure operation and the factors that accompany it.

Human-Centered Security and "Positive" Cyber Incident Reporting: The aim of the thesis is to first gain an overview of existing reporting data bases and other sources for cybersecurity incident reporting. Based on that, the second aim will be to analyse what kind of data can be publicly accessed and what can be learnt from it not only concerning "negative" outcomes but especially secure operation. Finally, depending on the outcome, initial

insights on factors accompanying secure operation as compared to negative outcomes will be derived. The thesis may thus include

- a comprehensive collection of cyber incident reporting data bases focusing on data being available to research and practice
- an exploration of existing data bases or other sources for learning about the factors related to "positive" outcomes or secure operation
- an analysis and comparison of what can be learnt from the available data not only with regards to "negative" but also "positive" cyber incidents

Depending on the focus or background of the student, the thesis can, e.g., include the implementation of a tool to search for or analyse incident data, or a survey/interview study to explore options for "positive" cybersecurity reporting. All details will be jointly agreed upon in the first meetings. Please get in touch for more information.

The Security, Privacy and Society Group
The group conducts research at the intersection of humans and technology with a focus on human-computer interaction and the human aspects of IT security and privacy. Using interdisciplinary approaches, we aim to tackle current security-related challenges and to develop human-centered solutions.

ETH Zürich
Prof. Dr. Verena Zimmermann
STB G19
Stampfenbachstrasse 69
8092 Zürich

Telefon: +41 44 632 3496
verena.zimmermann@gess.ethz.ch
www.spg.ethz.ch

D GESS