

RESILIENCE MANAGEMENT GUIDELINES FOR CRITICAL INFRASTRUCTURES, TRANSLATING RESILIENCE THEORY INTO PRACTICAL AND USEFUL INTERVENTIONS

*Ivonne Herrera, Matthieu Branlat, Tor Olav Grøtan*¹
*Luca Save, Daniele Ruscio*²
*Rogier Woltjer, Jonas Hermelin*³
*Thomas Feuerle, Peter Förster*⁴
*Odeya Cohen*⁵
*Laura Cafiero, Valentina Cedrini, Mauricio Mancini, Giancarlo Ferrara*⁶
*Giuseppina Mandarino, Luca Rossi*⁷
*Carl Oscar Johnson, Euan Morin*⁸

¹⁾ Sintef Digital, Norway

²⁾ Deep Blue, Italy

³⁾ Swedish Defence Research Agency (FOI), Sweden

⁴⁾ Technische Universität Braunschweig, Germany

⁵⁾ Ben-Gurion University of the Negev, Israel

⁶⁾ ENAV, Italy

⁷⁾ Istituto Superiore di Sanità (ISS), Italy

⁸⁾ Katastrofmedicinskt centrum (KMC), Sweden

Abstract

Resilience goes beyond safety and risk management encompassing the ability of organisations to proactively adapt to expected and unexpected situations (crisis, opportunities and changes). The literature on resilience is overwhelming, our systematic literature survey identified 300 different definitions on resilience, diverse developments. Hence, there is a need to translate this fragmented body of knowledge into consolidated practical solutions. The purpose of this paper is to introduce the final version of resilience management guidelines produced in the H2020 DARWIN project. Through a multidisciplinary approach, involving experts in the field of resilience, crisis and risk management and service providers in the Air Traffic Management, healthcare domains as well as representatives from other domains, the DARWIN project has produced evolving resilience management guidelines (DRMG). These guidelines are not prescriptive. Instead they enable organizations to have a critical view on their own crisis management activities. The DRMG are available in different formats for easy usage and

maintenance to avoid them being dust-collectors on a shelf. In this way, organizations can adapt, adopt and integrate the guidelines into their own existing management practices and procedures. Through an iterative development process involving academia and practitioners, the guidelines are constructed around Capability Cards (CCs). The evaluation in pilot exercises and other activities involved 247 practitioners from 22 countries explored the possibility to adapt the CCs to the Healthcare and Air Traffic Management domains. It also consider the feasibility of generalizing them to other Critical Infrastructure domains. Our achievement is the current version of guidelines proposing practical interventions that end-users find useful. This paper represents and invitation to explore the content of the guidelines, to encourage its use and further developments of the resilience management.