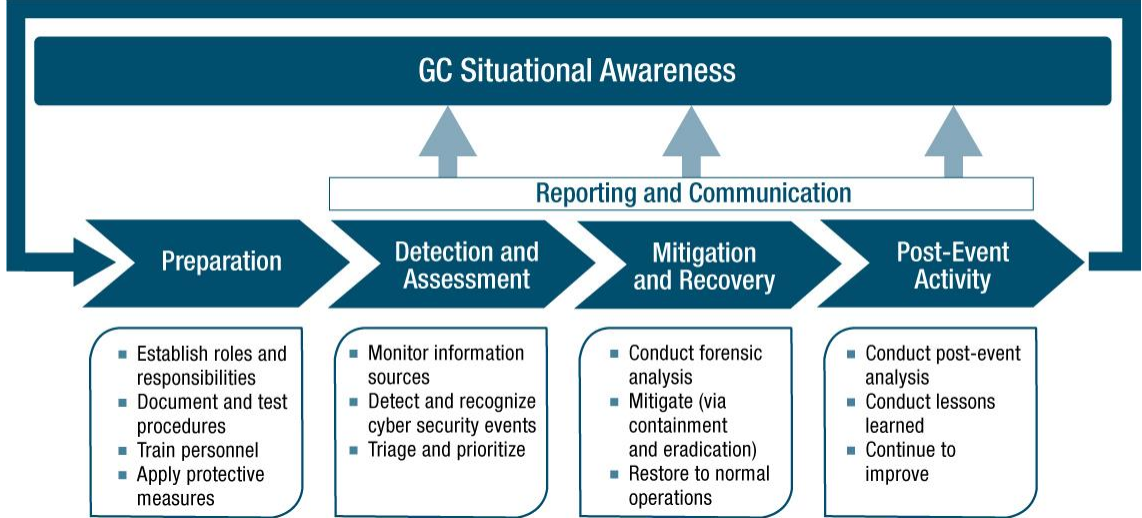


Critical Infrastructure Protection (CIP) & Resilience

Critical infrastructure (CI) is a term used to describe assets that are essential for the functioning of a society and economy. The incapacitation or destruction of CI would have a weakening or disastrous effect on security, national economy, public health or safety. The complex, interconnected and often interdependent nature of critical infrastructures increases the risk of a disaster-causing systemic failure in the region, country or globally. Main designing and operational procedures related to critical infrastructure (CI) safeguarding are called Critical Infrastructure Protection (CIP). Due to social responsibilities and mixed ownerships, the building of CIP requires governments and private sectors to work in partnership.

Classical Critical Infrastructure Protection (CIP) concept is usually divided into four stages: prevention, detection, response, and mitigation of consequences over the life span of the infrastructure. CIP approach covers protection against physical and cyber threats and incidents, taking into consideration also systemic security management issues, interconnections and the cascading effects. Following is the one CIP concept example:



Though various new CIP measures are constantly developed and implemented, malicious forces always come up with innovative ways to attack, breach and disrupt operation of critical infrastructures. Risk assessment has advanced significantly over years, but risk-based solutions tend to focus on assessing and strengthening components of complex systems under specific

threat scenarios. Therefore, as the complement to CIP, the resilience approach is in use to fortify critical infrastructures. *The US National Academy of Sciences (NAS) defines resilience as “the ability to prepare and plan for, absorb, recover from, and more successfully adapt to adverse events.”*

Critical Infrastructure Protection (CIP) & Resilience is a segment of Security as multidisciplinary science and INIS actively cooperates in CIP and resilience activities worldwide. Furthermore, INIS is preparing relevant special & custom courses, as well as corresponding optional areas for the study of Law together with well known Universities associated with INIS.