

CIPedia®: A Critical Infrastructure Protection and Resilience Resource

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CIPedia® (www.cipedia.eu) is a Wiki-based body of common knowledge for the wide international community of critical infrastructure (CI) protection and resilience stakeholders such as policy makers, researchers, governmental agencies, emergency management organizations, CI operators, and even the public.

CIPedia is developed within the European Critical Infrastructure Preparedness and Resilience Research Network (CIPRNet) project. CIPRNet is a Network of Excellence project co-funded by the security research program within the 7th Research Framework Program (FP7) of the European Union. The CIPRNet consortium includes six European research institutes (Fraunhofer, ENEA, TNO, CEA, JRC, Deltares), the international union of railways UIC, the universities of Rome, Cyprus, Bydgoszcz (Poland), and British Columbia (Canada), and ACRIS GmbH (Switzerland). The project coordination is by the German Fraunhofer Institute for Intelligent Analysis and Information Systems. The consortium brings together a unique set of knowledge and technology gathered in over sixty previous national and international research and development projects in the field of Critical Infrastructure Protection (CIP). Each consortium partner also functions as a multiplier by connecting their (inter)national networks and

research platforms to CIPRNet's core activities and capabilities.

CIPedia, The Idea

One of CIPRNet's objectives is to enhance the preparedness and response capabilities of the European CI stakeholders and to increase the resilience Europe's complex system of interconnected and dependent CI across the 28 EU member nations and some of its associated nations.

Based on earlier experience in European projects by the consortium partners and discussions during the project proposal phase, it was recognized that many definitions in the domain of critical infrastructure preparedness, protection and resilience differ from nation to nation, and from community to community. Sometimes the differences are slight; sometimes there are fundamental differences in approach. When one understands that there is a difference, it is easy to understand the other position. For that reason, the CIPRNet project has as one of its objective to improve the capability to cross-communicate within the multi-disciplinary domain of CI protection and resilience stakeholders by developing CIPedia.

The Objectives

CIPedia is a Wikipedia-based international glossary on CIP and Critical Infrastructure Resilience

(CIR). CIPedia aims to establish itself as a much needed but, up to the advent of CIPedia, missing common global reference point for CIP concepts and definitions. CIP/CIR terminology varies significantly due to contextual or sectoral differences, which, combined with the lack of standardization, create an unclear landscape of concepts and terms. CIPedia will not aim at resolving such conflicts. On the contrary, CIPedia tries to serve as a point of disambiguation where various meanings and definitions are listed, guiding the reader to seek additional information to the relevant sources. CIPedia should not attempt to decide upon a common definition, as this should be a process achieved collectively by the CIP/CIR community. CIPedia is a collaboration platform that may facilitate efforts towards such a direction, but it will not act as a moderator on terminology discussion. In this way, CIPedia will foster the efficiency of interdisciplinary communication and the cohesion of the multi-disciplinary CIP/CIR community, both foundations for enhanced innovation.

The Resource

CIPedia went public mid-2014. In its initial phase it was populated by members of the consortium by using definitions and terminology from earlier International projects such as Australia's Independent

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Research Institute Infrastructure Support Scheme (IRIIS) and the Netherlands' Designing an Interoperable European federated Simulation network for Critical InfraStructures project (DIESIS), the European Reference Network for Critical Infrastructure Protection (ERN-CIP) community, and national resources and literature known by the consortium partners. Many improvements took place based on inputs received from the early set of users. End of 2014, CIPedia moved to its next phase where stakeholders from the CIP/CIR domain can become a registered user. They can contribute and/or moderate this online global community service by providing additional entries to the glossary, and by further enriching it. To become a registered user, one needs to acquire a username/password combination by sending an email to the authors of this article. We invite you all to become actively involved in the international CIPedia community and making this resource even more useful.

CIPedia is currently already more than just a glossary. As a CIP/CIR

portal it provides access to a list of CIP conferences, a table with web pointers to CI sector-specific glossaries, and a pointer to the CIP bibliography. Please let us know about yet unlisted articles 'that make the difference' and need to be added to the CIP bibliography. Please provide (validated) BibTeX entries describing those articles or other written resources by email to us. The address has been provided at the end of the article.

Roadmap

In the current stage of development, CIPedia may resemble a glossary, which means it will be a collection of articles—one article per concept with key definitions. However, we aim to expand it over time and include discussions on each concept, links to useful information, important references, disambiguation notes, et cetera. Just like Wikipedia, new entries or 'articles' should begin with an appropriate definition or possible two or more rival definitions as well as other types of information about that topic as well. The full articles will eventually grow into a form very different

from dictionary entries. Moreover, if two concepts are used in a similar way, they can be merged into one article and a discussion on their use can follow. As explained above, CIPedia will not try to reach consensus about which term or which definition is optimum, but it will record any differences in opinion or approach.

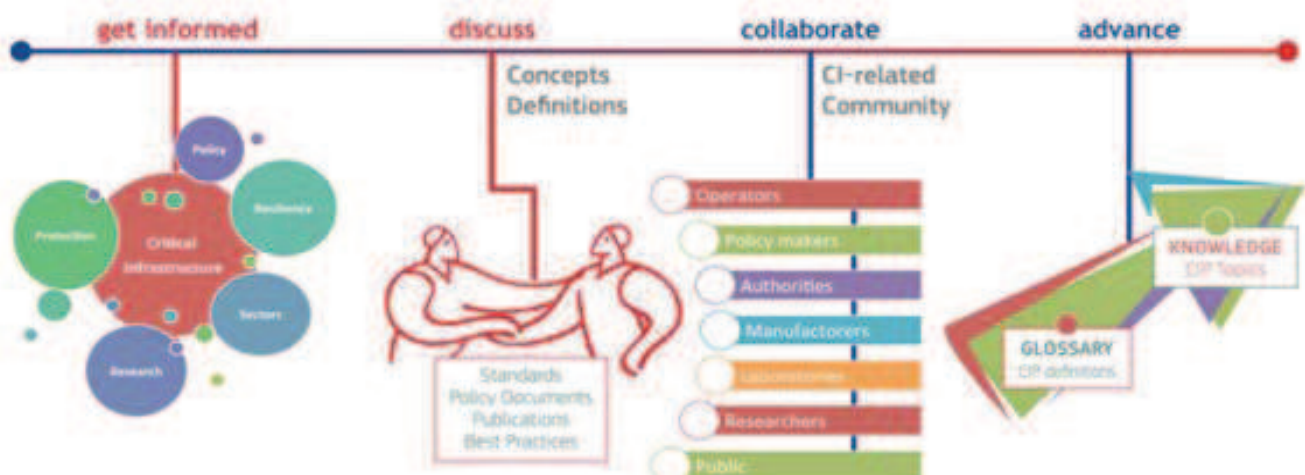
We are already making our mind up about CIPedia® 2.0. Your input is welcome. Do not refrain from sending us your suggestions for improvement and pointers to additional resources that need to be considered for inclusion.

Conclusion

To conclude: take a look, contribute, and spread the news about this resource developed for the whole global CIP/CIR community!

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in the field of Critical (Information) Infrastructure Protection, both at the technical and policy levels. Eric has published many popular articles, reports, and peer-reviewed publications about cyber terrorism and warfare, C(I)IP, process control security, and cyber security. He has been interviewed many times by press, radio and TV on these topics. Contact information: eric.luijf@tno.nl

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Erich Rome PhD is a senior researcher and project manager at Fraunhofer-Institut für Intelligente Analyse und Informationssysteme IAIS' ART department in Germany. Since 2007, Erich Rome investigates MS&A for CIP and multi-sensory systems for surveillance and security. He published numerous peer-reviewed publications, edited several books and is a member of the steering committee of the workshop series CRITIS. So far, he coordinated four EU projects, CIPRNet being the current one. Contact information: erich.rome@iais.fraunhofer.de ❖

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