

Cyber ROAD

Development of the Cybercrime and Cyber-terrorism Research Roadmap



European Commission Seventh Framework Programme

The CyberROAD roadmap



Enrico Frumento (CEFRIEL)





Aim of this presentation



This presentation aims is to clarify the concept of roadmapping and show how it was used in CyberROAD



We all live in a world that is constantly shaped by several **driving forces**, which are paving the road to the **future**.

A roadmap is the method used to identify these forces, understand their influence in **today's and tomorrow's world**

Cybercrime and **cyberterrorism** are **special** because are influenced by **external** (e.g., defence strategies, business, social, political, legal and technological) and **internal** forces (e.g., evolution of malware, black market, RCE)



What is a Roadmap





Future of Networking, Automotive, Critical Infrastructures ...



What is a Roadmap



How we imagine the specific "aspect" of the world to evolve in the next years?





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Building a Roadmap means .. > go deep into a specific scenario > understand which are its pillars and driving forces > understand which are its specific threats today and tomorrow > figure out how it will be in 2024 and how threats will evolve

HENCE

connect the dots ..

How countermeasures must evolve to face tomorrows threats





What means gap analysis: threat at different moments in time



The aim of GAP Analysis is to track the changes in the threat landscape to <u>improve defences</u>





Toward the final Roadmap







Toward the final Roadmap









- Asset: anything that has a value to the organization
- **Threat**: a potential cause of an unwanted incident which may result in harm to the organization
- Vulnerability: a weakness in an asset which can be exploited by a threat.
- **Risk**: the potential that a given threat will exploit vulnerabilities of an asset to cause loss or damage to the asset.
- We considered several types of risk:
 - Data Breach Risk
 - Health & Safety Risk
 - Financial Risk
 - Intangible Risk





Where we are now in the process..



When now then have

- A clear understanding of what is a roadmap and why cybercrime and cyberterrorism are «special»
- A set of gaps grouped into Research Topics
- The corresponding Research Actions needed to fill the gaps
- A definition of the Risks that we want to measure
- A ranking method

Just apply the method and find a good graphical representation







- The area **covered** by the radar graph is the **readiness** of current defences in the 4 considered directions.
- The area **outside** the radar graph is the gap that needs to be filled by the **research**, to reduce the risk





COURAGE, CAMINO e CyberROAD





COURAGE, CAMINO and CyberRoad Consolidated Research Roadmap



Ladies and gentleman ...



