
MITIGATE YOUR CYBER RISKS; PROTECT THE CRITICAL INFORMATION INFRASTRUCTURE IN YOUR [MARITIME] SUPPLY CHAIN



MITIGATE

Protecting Maritime Supply Chain IT Infrastructure

CIP Vienna 2017



Mitigate objectives: Develop an advanced risk management system for maritime supply chain actors

- Integration of adapted existing software
- Use of advanced software technology
- Implementation of latest scientific research
- Validated by potential users
- Commercial exploitation by software-as-a-service concept
- Various advantages compared to the state of the art
- Contribution to the Network Information Security Platform

MITIGATE research results



The MITIGATE project provides a methodology and software and services in order to

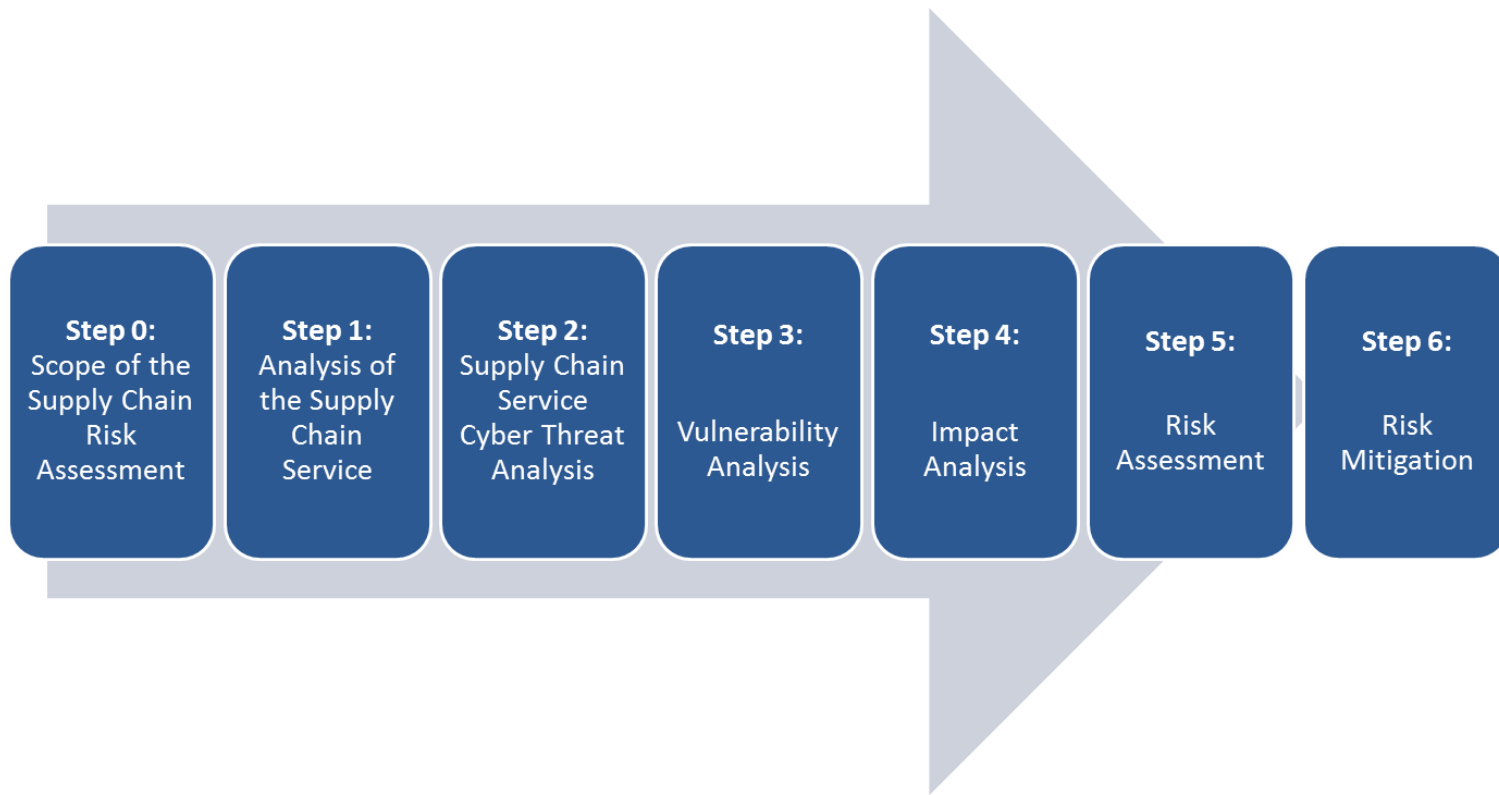
- monitor and assess IT-Infrastructure and cyber dependencies
- find and report relevant new vulnerabilities
- conduct a cyber risk assessment
- provide game-theory optimized counter measures



What is MITIGATE?



A dynamic, cloudbased risk management system integrating a couple of novel methodologies and tools for risk management along the [maritime] supply chain

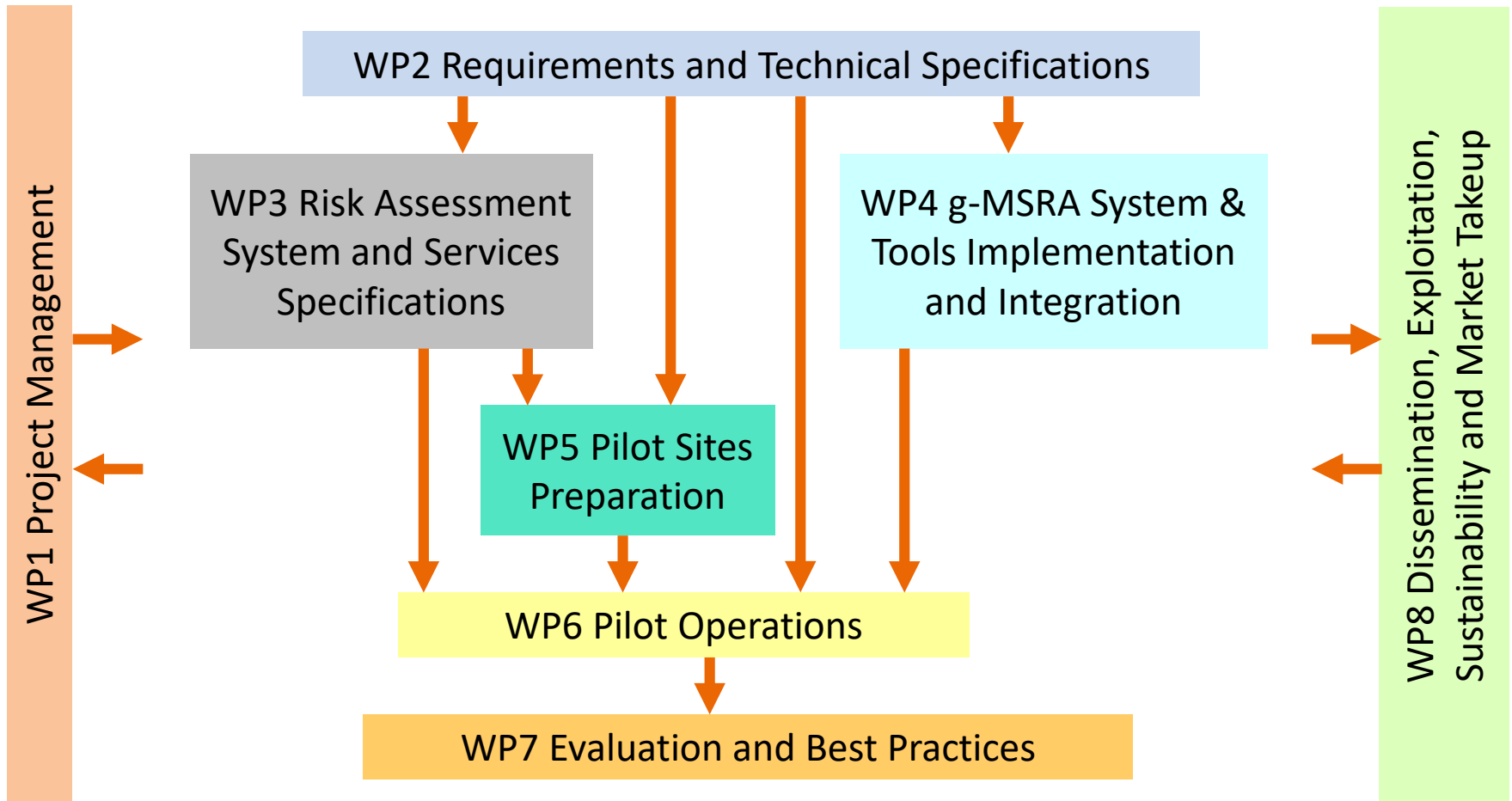


Budget and Administrative details

- Duration:
September 2015 – February 2018
- Budget:
3.55 m€
- Funding:
3.1 m€
- Coordination:
Fraunhofer Gesellschaft zur Förderung der
angewandten Forschung e.V. (Fraunhofer)
- Technical coordination:
University of Piraeus Research Center (UPRC)



MITIGATE Project structure



Envisaged advantages compared to state of the art

■ Risk Assessment

- Collaborative: use supply chain interdependencies
- Evidence-driven: integrate official, social media and big data sources
- Realistic: consider attack paths in network
- Accurate: determine risk levels
- Anticipatory: forecast likelihood of vulnerabilities
- Dynamic: continuous update of calculation and sources

■ Risk Minimization and Mitigation

- Propose optimal security controls

■ Compliance to international standards

- ISPS, ISO 20858, 27001, 27005, 28000..., 31000, 31010; AS/NZS 4360
- NIST SP 800-128

The Mitigate system and services



MITIGATE v 1.1 Documentation Log in

WELCOME TO MITIGATE PLATFORM

The main goal of MITIGATE is to realize a radical shift in risk management methodologies for the maritime sector towards a collaborative evidence-driven Maritime Supply Chain Risk Assessment (g-MSRA) approach that alleviates the limitations of state-of-the-art risk management frameworks.

To this end, the project will integrate, validate and commercially exploit an effective, collaborative, standards-based **RISK MANAGEMENT SYSTEM** for port's Critical Information Infrastructures (CIIs), which shall consider all threats arising from the supply chain, including threats associated with portCIIs interdependencies and associated cascading effects.

- SUPPLY CHAIN SERVICE MANAGEMENT**
Manage services, processes and relevant cyber-security assets.
- COLLABORATIVE RISK ASSESSMENT**
Evaluate risks and processes based on dynamically inferred cyber dependencies.
- COMPLIANCE WITH CYBER-SECURITY STANDARDS**
Compliant with NIST standards (CVE, CWE, CPE).
- OPTIMISED DEFENSE STRATEGIES**
Select best-fit counter measurements based on calculated risks.

Mitigate Walkthrough

After the declaration of an asset, the user can edit it at any time.

One of the most important features of the Asset Management is the ability to explore:
a) the (automatically) identified vulnerabilities;
b) the associated threats and c) the enforced controls.



The Mitigate system and services



MITIGATE v 1.1 Dashboard Documentation Logout

MENU / DASHBOARD

- Dashboard
- Supply chain services
- Pending actions
- Business Partners
- Risk Assessments
- Assets
- Sites
- Networks
- Vendors
- Products
- Vulnerabilities
- Threats
- Threat Profiles
- Attack Scenarios
- Controls
- Open Intelligence News
- Open Intelligence Search
- Open Intelligence Keyword

Dashboard

Overview

- Registered Vendors (4960) →**
List of registered vendors
- Confirmed Vulnerabilities (80486) →**
List of confirmed vulnerabilities
- Risk assessments (79) →**
List of risk assessments
- Assets (395) →**
List of assets



Stay in contact

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