

# Project Overview, Objectives, Ambitions and Goals

Project Overview  
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@DEP\_ERMIS



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## Facts

- *Cybercrime costs are expected to grow by 15 percent per year over the next five years, reaching \$10.5 trillion USD annually by 2025*
- *NIS2 affects all entities that provide essential or important services within the EU – increased fines*
- *Cybersecurity Insurance Market was valued at USD 16.4 billion in 2023*

**ERMIS Objective:** Revolutionise the cyber security insurance and assurance market

**ERMIS Objective:** Deliver cyber security assurance and insurance as-a-service

**Call / TOPIC:** DIGITAL-ECCC-2022-CYBER-03

**Start:** 1/11/2023

**Duration:** 36 months,

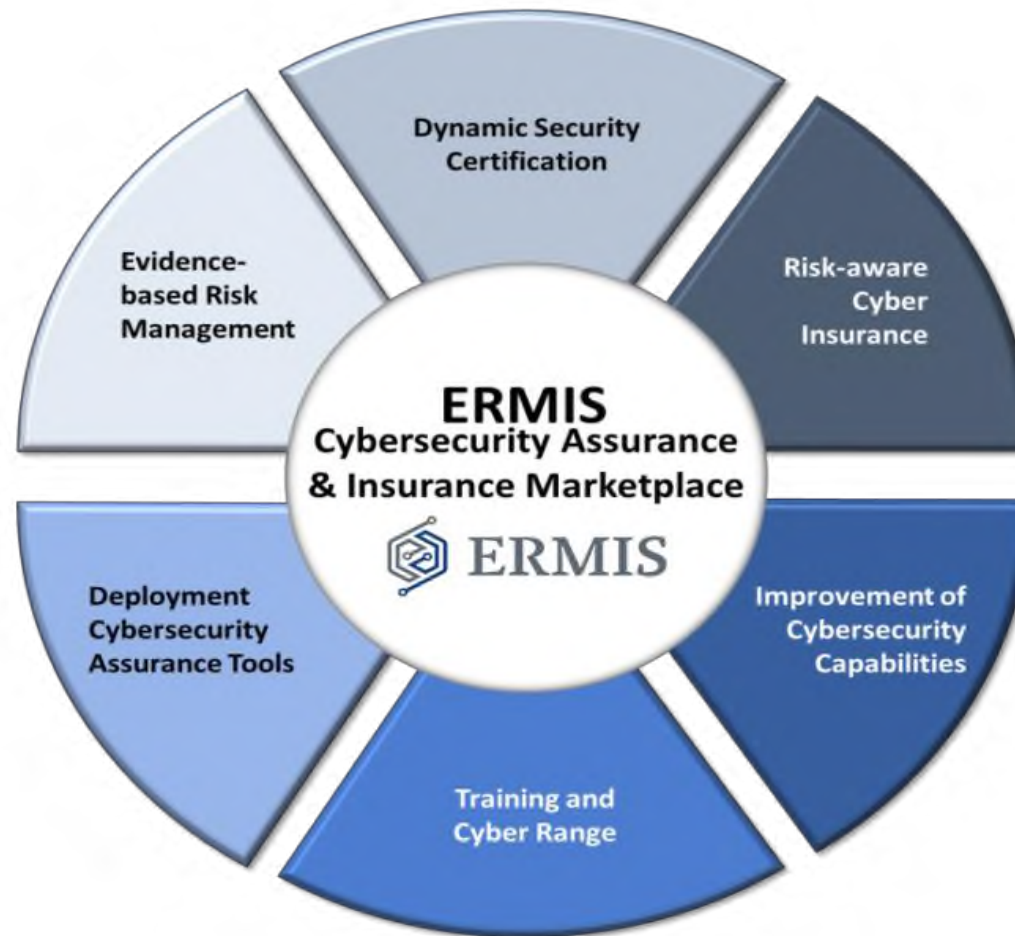
**EU Funding:** 75%

**Total Budget:** 2,492,874.48€

# ERMIS Vision and Goals

## **Vision:**

***ERMIS project aims to deliver cyber security assurance and insurance as-a-service, by integrating mechanisms, services, and tools in an innovative marketplace platform***



## **Goals:**

- ***Support the adoption of market-ready innovative cybersecurity solutions,***
- ***Provide and deploy up to date tools and services to organisations***
- ***Improve the security of open-source solutions.***

# ERMIS Objective KPIs (1)

**Obj. 1 – Design, implement and deliver a TRL-7 and highly usable cybersecurity, certification and cyber insurance management marketplace targeted at EU organisations, including SMEs, and public organisations, and cyber insurance agencies and relevant providers, aiming at fostering the adoption and uptake of market-ready innovative cybersecurity solutions**

S. Obj.	Description
S.O.1.1	Provide a validated set of cybersecurity functional primitives as a service, to address security and privacy requirements of their composite cyber systems.
S.O.1.2	Exploit and marketize the research outcomes and solutions developed in the framework of Eu supported or funded projects
S.O.1.3	Provide tailor-made services for cyber insurers, supporting the automated creation, pricing, continuous monitoring, and adaptation of cyber insurance policies for cyber systems.
S.O.1.4	Increase the level of cybersecurity situation awareness and preparedness of SMEs
S.O.1.5	Deliver an orchestrated ML-assisted environment

# ERMIS Objective KPIs (2)

## Obj. 2 – Deliver market-ready tools for increasing the resilience and preparedness of SMEs against cyber threats

S. Obj.	Description
S.O.2.1	Define and validate evidence-based risk, threat and vulnerability analysis ML-based models
S.O.2.2	Enhance cyber-incident response among different digital infrastructures and cyber systems.
S.O.2.3	Develop security audit and testing tools for discovering security flaws and improving the security of open-source solutions.

## Obj. 3 – Deliver market-ready tools, processes and models for the agile and verifiable certification of cyber systems, ensuring the conformity assessment and validation

S. Obj.	Description
S.O.3.1	Promote the scalable, agile and verifiable certification of cyber systems, towards ensuring and fostering the protection and resilience of SMEs products and services
S.O.3.2	Optimize, automate and facilitate the conformity assessment of cyber systems ensuring compliance and mitigating potential compliance breaches. (

# ERMIS Objectives (3)

## Obj. 4 – Deliver an innovative framework supporting the creation and management of cyber insurance policies and offering a sound liability basis for establishing trust in cyber systems and services

S. Obj.	Description
S.O.4.1	Develop ML-based models for more accurate definition and specification of cyber insurance policies, which consider evidence from ongoing policy operational claims.
S.O.4.2	Establish a process centric framework for automating the creation and management of cyber insurance policies for cyber systems, based on integrating proven techniques for the certification, audit and risk assessment of security and privacy (S&P) for such systems
S.O.4.3	Establish conditions for improving cyber insurance practices and the trustworthiness of cyber systems and commercialising the use of the ERMIS platform and cyber insurance framework.

## Obj. 5 – Validate the ERMIS offerings in real world environments and business cases for improving cybersecurity assurance capabilities in the EU and enhancing cyber insurance management

S. Obj.	Description
S.O.5.1	Establish the evaluation process taking into account technical, usable, and techno-economic perspectives. (relevant activities:
S.O.5.2	Prove the applicability, usability, effectiveness and value of the ERMIS concepts, tools and services in the real-life business environment of European organisations and SMEs.

**Obj. 6 –Raise awareness on the innovative ERMIS results to business, research, academic, and open-source communities in the EU and empower their skills in addressing ongoing cybersecurity challenges.**

S. Obj.	Description
S.O.6.1	Present the project progress, technologies and results to targeted stakeholders, ensuring wide awareness of main ERMIS marketplace users
S.O.6.2	Analyse the market for the ERMIS cybersecurity management framework, tools, services and solution, and define viable and demand driven exploitation and business models.
S.O.6.3	Deliver cyber ranges and training resources tailored to the needs of the cybersecurity and insurance experts to address the challenges of the evolving threat landscape in the EU



# ERMIS Architecture (1)

## H3 - User Interfaces

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Marketplace Services  
Visualisation

Cyber-risk Awareness  
Dashboards

Certification  
Operations Handling  
Dashboards

Cyber Insurance Policy  
Operations Handling  
Dashboards

Administration Panel

## C3 - Risk-aware Cyber Insurance Policy Management

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Cyber Insurance Policy  
Models Management

Contract Pricing

Cyber Insurance Policy  
Definition

#### Risk-based Policy Specification

Policy Performance  
Assessment

Policy Performance  
and contract adaptation

Policy Claims  
Monitoring

Cyber Insurance  
Contract Adaptation

## C2 - Risk-aware security certification

### C2 - Risk-aware security certification

Multilevel auditing

Composite security  
assurance

Certificate  
Management

Security Certification  
Models Management

#### Composite Conformity Assessment

#### Certificate Knowledge Sharing

Certification Schemes  
Discovery

Certification  
Knowledge Exchange

### User Interfaces (H3):

Intuitive visualisations and dashboards for the business scenarios

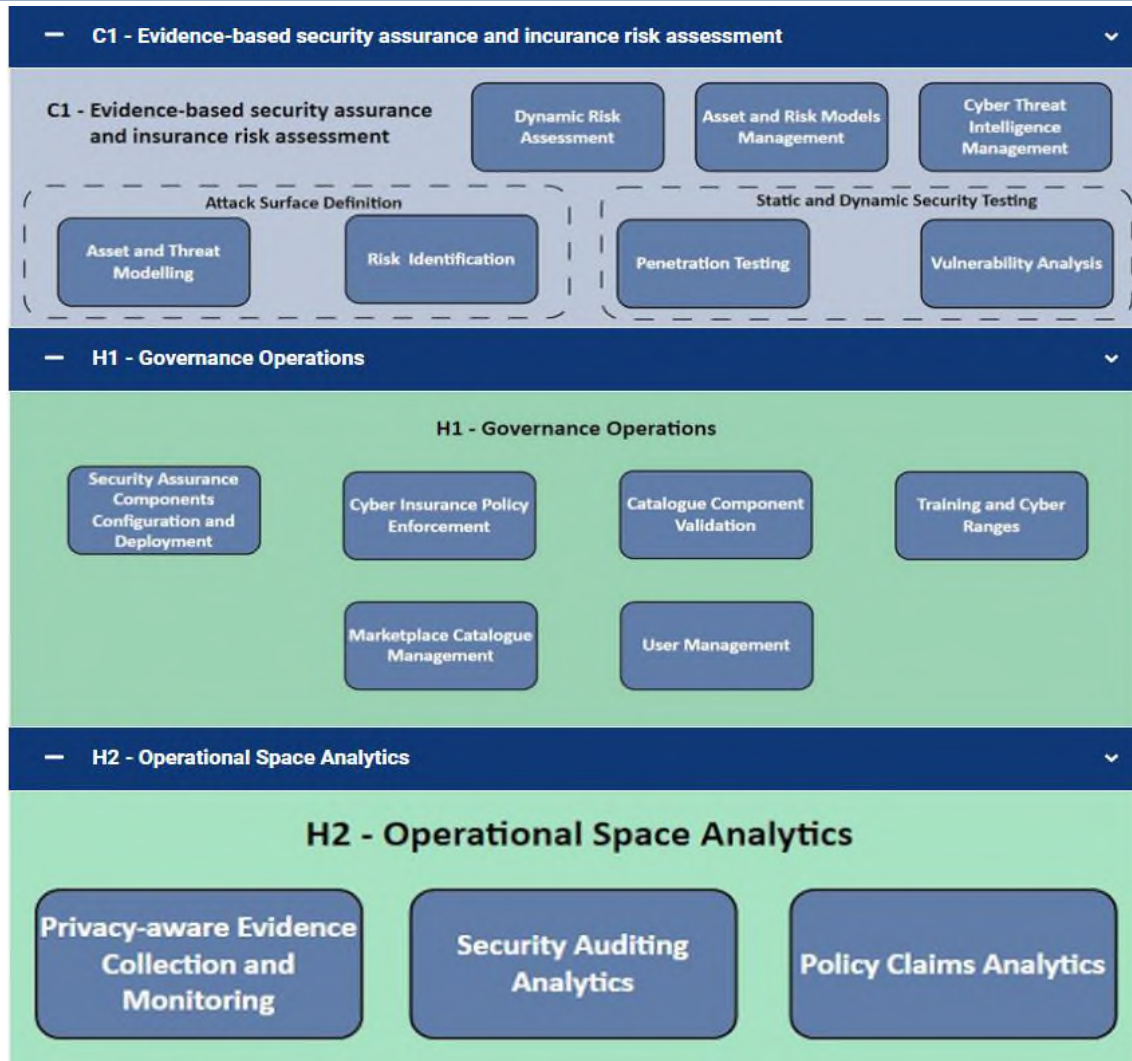
### Risk awareness-enriched cyber insurance management (C3):

Service capabilities for the management of cyber insurance policies and related contracts.

### Risk-aware security certification (C2):

The dynamic certification process in ERMIS  
Static and dynamic security testing

# ERMIS Architecture (1)



## Evidence-based security assurance and insurance risk assessment (C1):

Set of services that supports the implementation of the ERMIS cyber risk assessment process (attack specs, cyber assets and their models, vulnerabilities assessment etc)

## Marketplace Governance services (H1):

Support the secure and reliable operation of the ERMIS marketplace.

## Operational space analytics (H2):

Set of ML-based models and components that facilitate the collection and analysis of logs from the organisational cyber systems



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SPHYNX HELLAS offer consulting services and are vendors of solutions in the area of cybersecurity assurance, as well as SOC services.

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Insuretics is a startup company specialised in AI technologies for the insurance industry.

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Karavias Underwriting Agency established in 2014 by George Karavias and a highly experienced team.

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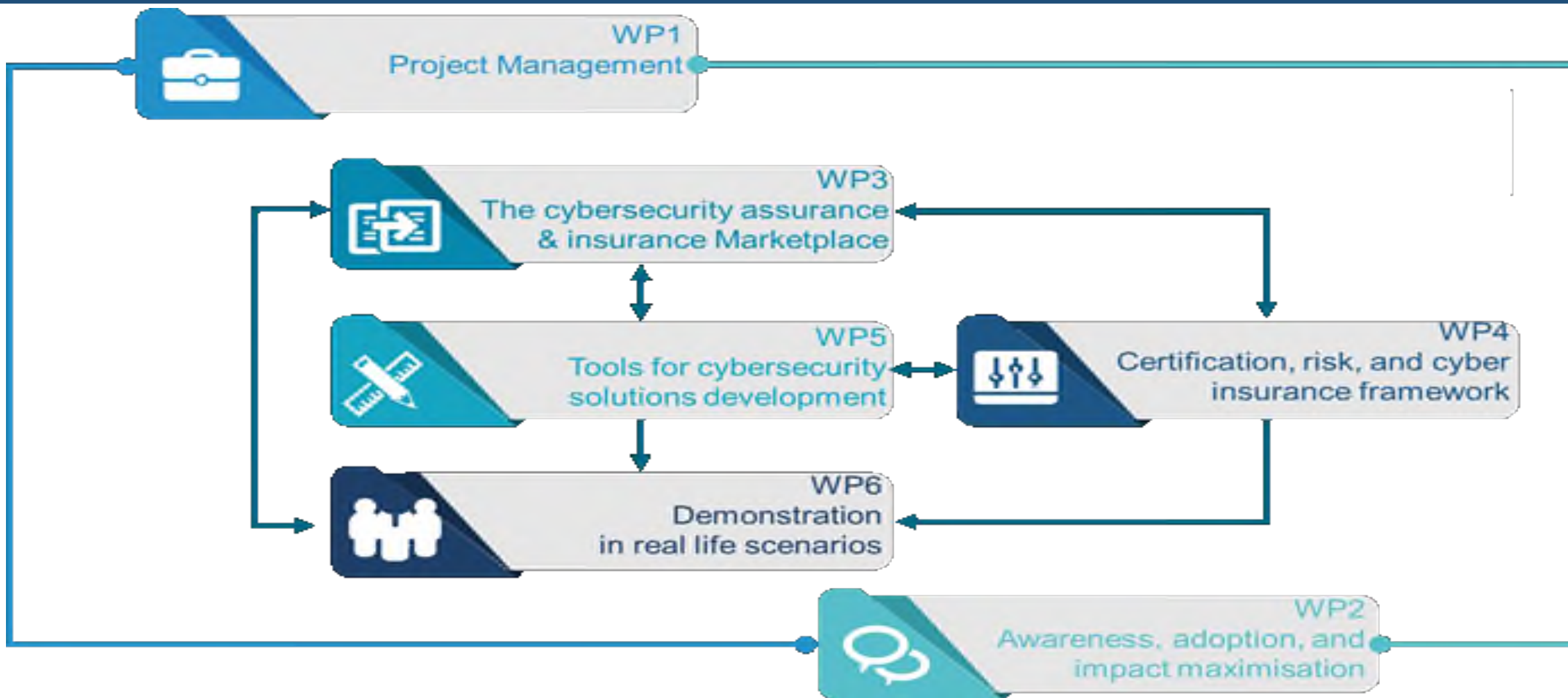
Nodalpoint Systems (NDP) is an ICT company specializing in the development of cutting-edge technology solutions for the healthcare sector and various other industries.

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MDG (Ministry of Digital Governance) acts as the representative of public organisations in the ERMIS partnership.

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# ERMIS Expected Outcomes (1)

Target Group	Expected Benefits
<b>Cyber Insurance Companies (primary)</b>	Automated or semi- automated security certification and risk assessment. <b>Reduce the information asymmetry between insurers and client</b>
<b>SMEs (primary)</b>	Availability of tools, services and processes for cyber security <b>assurance, certification and cyber insurance</b>
<b>Security services/tools Providers (primary)</b>	<b>Agile certification scheme</b> ; Optimize security Challenges; certify tools/models/processes
<b>Industry Associations</b>	Regulation compliance; <b>broad access</b> to useful insights and tools
<b>Scientific Community</b>	<b>Validated</b> methods, tools, models and reference architecture

# ERMIS Expected Outcomes (2)

Target Group	Expected Benefits
<b>Open-source communities</b>	<b>Validation</b> of security assurance of <b>open-source components</b>
<b>Conformity Assessment Bodies</b>	<b>Certification models</b> that incorporate risk management and cyber insurance of cyber systems
<b>Policy Makers (primary)</b>	<b>Better insights</b> on policy deficiencies and gaps; availability of conformity- related information
<b>Consumer Associations &amp; General Public</b>	<b>Secured</b> and <b>certified</b> services, tools and processes

# Contact Us

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