



Newsletter/ June 2019—Issue 1

SECONDO

a Security ECONomics service platform for smart security investments and cyber insurance pricing in the beyond 2020

networking era

PROJECT COORDINATION

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PROJECT DETAILS

Project number: 823997

Project Website: secondo-h2020.eu

Project start: 1st January 2019

Duration: 48 Months

Total cost: EUR 1 600 800

EC Contribution: EUR 1 600 800

SECONDO addresses the question “How can decisions about cyber security investments and cyber insurance pricing be optimised?” **SECONDO** will support professionals who seek cyber security investments, developed to support human decision making, and a complete well-founded security strategy. This is a timely research problem, as the rapid growth of cyber-attacks is expected to continue its upwards trajectory. Such growth presents a prominent threat to normal business operations and the EU society itself. On the other hand, an interesting, well-known, finding is that an organisation's computer systems may be less secure than a competitor's, despite having spent more money in securing them. Budget setting, cyber security investment choices and cyber insurance, in the face of uncertainties, are highly challenging tasks with massive business implications. **SECONDO** aims to make impact on the operation of EU businesses who often: (i) have a limited cyber security budget; and (ii) ignore the importance of cyber insurance. Cyber insurance can play a critical role to the mitigation of cyber risk. This can be done by imposing a cost on firms' cyber risk through a premium that they have to pay and the potential for paying a smaller premium should they reduce their current cyber security risk. **SECONDO** has a crossdisciplinary nature, combining mathematical and engineering insights to empower innovative software. Apart from the novel research results, the project will offer a software platform to narrow the gap between theoretical understanding and practice



Horizon 2020
European Union funding
for Research & Innovation

This project has received funding from the European Union's H2020-MSCA-RISE-2018 programme under grant agreement No 823997.



BUSINESS CASES

The business cases will focus on specific aspects of the **SECONDO** project:

- ◆ Risk Modeling
- ◆ Cyber Security Investments Decisions
- ◆ Cyber Insurance in Organization

Emphasis will be given on the specification of requirements that are derived from existing limitations of current risk analysis methodologies that deteriorate the decisions on optimal investments in cyber security and cyber insurance.

MESSAGE FROM THE COORDINATOR

*We are happy to introduce you to the **SECONDO** newsletter, a great vehicle for our consortium to communicate our project’s achievements, activities and results. The intention of this newsletter is to open a new communication channel in order to provide news on the project progress and to discuss ongoing topics relevant to **SECONDO** for internal and external project partners and all other interested bodies.*

For more detailed information about and around the project we warmly invite you to have a look on our project website, which is constantly kept up-to-date with the latest project related news: secondo-h2020.eu

The project has successfully started with the kick-off meeting in January 2019 and since then the project has been progressing towards the analysis of the **SECONDO** business cases and the determination of **SECONDO** architecture that meets all of the **SECONDO** requirements.



Christos Xenakis



WIDER EUROPEAN UNION AND GLOBAL ECONOMICAL AND SOCIAL IMPACT

Currently, much effort is being made at European and global level, to push towards realizing economics of security as a major field of research to empower users and organizations to improve upon their security postures. To this end, SECONDO will provide an innovative platform that will contribute to mitigating cyber security risks by investing in cyber security as well as outsourcing residual risks. In turn, this will facilitate a more efficient and straightforward way of complying with GDPR throughout EU countries. Regarding economic impacts, both Small-to-Medium-Enterprises (SME) and large organisations will be able to mitigate cyber risk through economically viable and effective cyber security solutions. They will also substitute expensive consultation on cyber security strategies and investments with the SECONDO platform and knowledge acquired from the project outcomes. Furthermore, the project results will help businesses to ensure their customers higher levels of security making their services more attractive than before therefore increasing customer portfolio. Especially SMEs will: (i) improve the trust of end users to their services and products; and (ii) increase their innovation in EU as higher levels of security will assure less expected losses, such as intellectual property theft, which has been experienced significantly in the past. Cyber insurers will also be benefited from the results of the project by providing cyber insurance contracts with more affordable premiums for clients thus attracting more clients. Regarding societal impacts, the results of the project are envisaged to reduce the attack surface by minimizing cyber security risks therefore assuring higher levels of cyber security to the EU society, which depends on large organizations, as a whole. Also, fair premiums are expected to increase the number of organizations that satisfy minimum requirements set by in order to be eligible for these fair premiums leading to trusted services for citizens. More affordable premiums may also encourage the underwriting of individuals to insure their personal data value and implement basic cyber security controls to protect them. Apart from increasing security of businesses, SECONDO will improve communication of ideas and propositions between a security manager and the board of directors when it comes to investing in cyber security controls and cyber insurance. This will be achieved due to the rigorous as well as structured model offered by SECONDO, which can play a key role in bridging the knowledge gap between technical managers and business directors. This is a prominent challenge when taking financial decisions on how to allocate cyber security budgets

WIDER INDUSTRIAL BENEFITS

It is anticipated that the project will benefit the following groups: (i) SMEs: those companies that according to many reports, are typically less well protected than large firms. Statistics show that SMEs are reluctant to acquire cyber insurance, mainly due to incurred costs; (ii) Large organisations: those organisations that usually do as much as they can to have high level of cyber security; (iii) Cyber insurers: those companies that offer insurance products used to protect businesses and individual users from Internet-based risks, and more generally from risks relating to ICT infrastructure and activities; (vi) Cyber security professionals, managers and business consultants: those who have to decide upon allocation of a cyber security budget to defend an organisation's assets.



RESEARCH, TECHNOLOGICAL AND BUSINESS OBJECTIVES

- ◆ To design and develop an extended risk analysis metamodel.
- ◆ To design and develop a scenario-based risk management module that facilitates in both cost-effective risk management and optimized security investments.
- ◆ To design and develop a cyber insurance module that estimates cyber insurance exposure and derives coverage and premiums.
- ◆ Use smart contracts and a blockchain to empower cyber insurance claim.
- ◆ To integrate all SECONDO modules, test the platform and develop a user-friendly interface.
- ◆ To assess the functionality, effectiveness and efficiency of the SECONDO platform in real-life scenarios.
- ◆ To design an innovative business model and conduct a techno-economic analysis to strengthen the role of cyber insurance and cyber security industry in the global market

NEWS AND EVENTS

- ◆ SECONDO Kick-off Meeting <https://bit.ly/32Yh7Yk>
- ◆ NEWS SECONDO Secondment at Cyprus University of Technology <https://bit.ly/36eqTrt>



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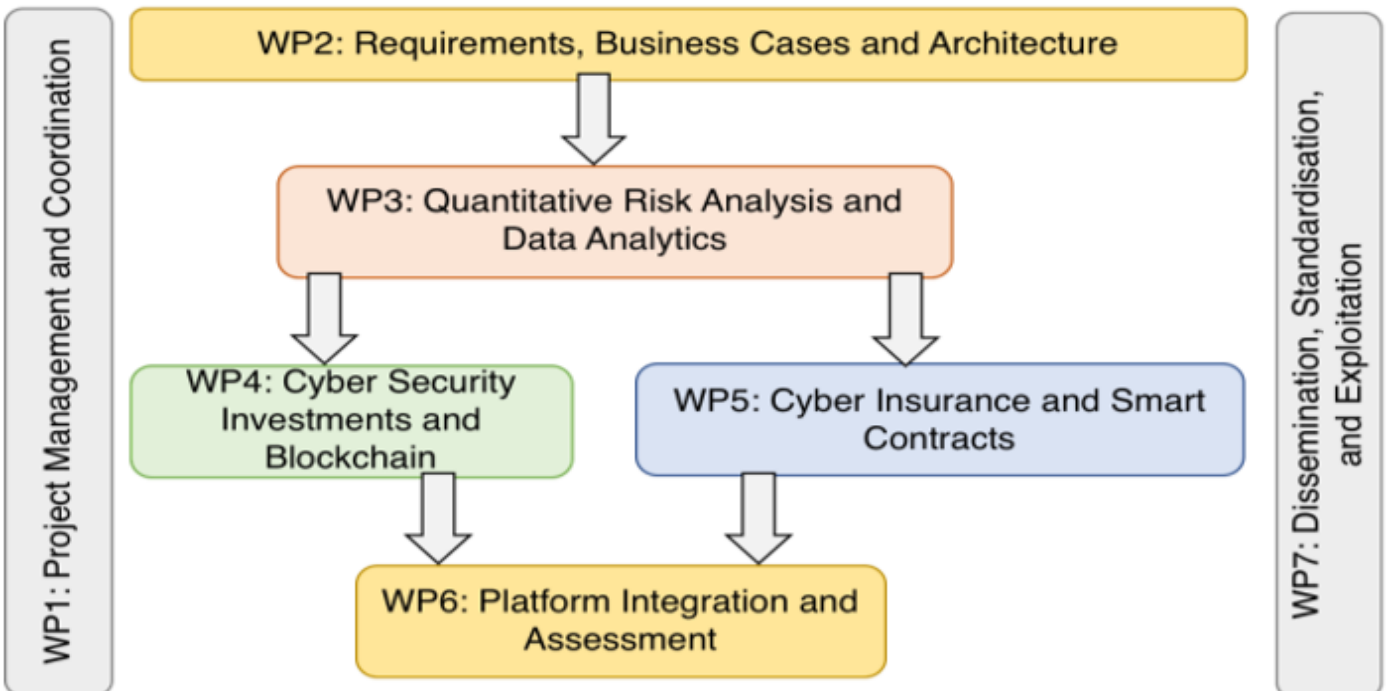
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METHODOLOGICAL APPROACH AND MAJOR SUBDIVISION OF THE WORK

To accomplish **SECONDO**'s objectives the work has been structured in 5 research WP (WP2 - WP6), while 2 WPs have been dedicated to the monitoring of the management and the dissemination/exploitation activities (WP1 and WP7, respectively).

WP No	Work Package Title	Start Month	End Month
1	Project Management and Coordination	1	48
2	Requirements, Business Cases and Architecture	1	12
3	Quantitative Risk Analysis and Data Analytics	7	12
4	Cyber Security Investments and Blockchain	14	28
5	Cyber Insurance and Smart Contracts	14	37
6	Platform Integration and Assessment	34	48
7	Dissemination, Standardisation, and Exploita-	7	48





UPCOMING DELIVERABLES

- D1.2 First Year Management and Technical Activity Report
- D2.1 Technical Requirements, Business Cases and Reference Architecture
- D7.1 Dissemination and Standardisation Plan

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