ATLANTIS

Newsletter #1

July 2023

Reliable operation of Critical Infrastructures (CIs) is a pre-requisite for the integrity and resilience of vital elements in our society that helps to ensure the security, well-being, and economic prosperity of Europe. However, CIs have become very complex and operate in rapidly evolving social, technological, and business environments. Growing digitalization and interconnection of CIs generates new vulnerabilities, which can cause severe and long-lasting effects in multiple sectors and countries. This increases the attack surface, as well as the scale and significance of the impacts of attacks.
In this emerging safety-security landscape, the critical infrastructures in Europe are increasingly becoming targets of new categories of hybrid threats and attacks. However, limited research has been conducted on large-scale, transnational, and cross-domain coordinated attacks. A fundamental challenge in governing systemic risks is understanding the system as a complex network of individual and institutional actors with different and often conflicting interests, values, and worldviews.

ATLANTIS is a running project (October 2022 - September 2025), which involves 38 partners, 12 CI Operators, and 5 CI authorities from 10 countries.

ATLANTIS evaluates and addresses systemic risks against major natural hazards and complex attacks that could potentially disrupt vital functions of the European society (public and private actors).

ATLANTIS aims at:

- **Improving knowledge on large-scale vulnerability assessment and long-term system risks management in CIs.**
- **Improving the systemic resilience of CIs in Europe through a novel adaptive, flexible, and customizable security solution based on AI.**
- **Facilitating cooperation among CI operators while preserving the autonomy and sovereignty of CI.**
- **Deliver AI-based solutions (TLR7) for increased awareness, capability, and cooperation in the management of systemic threats.**

CI: Port of Koper, Slovenia.

ATLANTIS will be validated and demonstrated in 3 large-scale cross-border and cross-sector pilots (LSPs):
LSP#1: Cross-Border/Cross-Domain LSP in Transport, Energy, and Telecoms
LSP#2: Cross-Domain LSP in Health, Logistics/Supply Chain, and Border Control
LSP#3: Cross-Country LSP in FinTech/Financial

Following this short introduction, in this first ATLANTIS newsletter, we provide profile information about each of the partner organizations and their role in the project:

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1. Engineering – Ingegneria Informatica SPA
http://www.eng.it

Engineering Ingegneria Informatica with more than 1.64B€ annual revenue in 2022 is a leading security and mission critical solutions provider with approximately 14,000 professionals in 40+ locations, with a clear focus in critical infrastructures, cybersecurity and energy utilities. With a strong focus on Innovation, through the R&I division, the Group continues to invest in international R&D projects while exploring groundbreaking technologies and developing new business solutions.

Engineering is the *Coordinator* and the *Innovation Manager* for the *ATLANTIS* European project. Engineering has remarkable expertise in Critical Infrastructure Protection and have coordinated several CIP/INFRA security projects. Engineering is also leading *WP3* - "Protective Technologies to reduce systemic risks"- and task T6.3 - "Exploitation strategy". Indeed, Engineering will exploit ATLANTIS technology and solutions by expanding its portfolio of cybersecurity services and products.

2. CS Group
https://www.csgroup.eu/en

CS GROUP is a large and very innovative company based in Paris - France, with subsidiaries in Europe, Asia, as well as in North America, and listed on the Paris Stock Exchange. It employs 2100 people worldwide, among which 90% are PhDs or Engineers, for an annual turnover of 210 M€ in 2021, of which ~20% are allocated to RTD activities. CS GROUP expertise in critical systems makes it a partner of choice in the sectors of defense and security, space, as well as aeronautics, energy, and industry. Acknowledged as a very innovative company, CS GROUP participates in numerous French competitiveness clusters, as well as European Commission and ESA programs. In May 2020, CS GROUP Defense Business Unit merged with DIGINEXT, its prestigious 100% owned subsidiary, to form a European leader employing 700 experts in the field of Defense and Security. And, in February 2023, CS GROUP became part of SOPRA STERIA, European tech leader recognised for its consulting, digital services and software development thus becoming a European key player in defense and security, space and aeronautics.

In the context of the ATLANTIS project, CS is involved in the Task 2.2 has Task leader on Self-healing and Resiliency by design. We will also embed our Hypervision system, CRIMSON, as Cross-border Command&Control center to connect to the CCI-SAAM framework and to ensure the reporting and information sharing among CIs.

3. SIXENSE ENGINEERING
https://www.resallience.com

RESALLIENCE by SIXENSE, a French engineering firm, aims to boost regional resilience against climate change, enhancing civil security via suitable adaptation methods. The team, comprised of engineers, data scientists, architects, and planners, focuses on improving infrastructure resilience using innovative and nature-based solutions, aiming to tackle environmental, socio-economic, and political challenges.
Their services encompass four main activities:

- Analyses: conducting vulnerability assessments, disaster risk evaluation, predictive monitoring, and regulatory reporting.
- Innovative solutions: offering engineering and nature-based solutions for infrastructure, mobility, energy, along with custom digital tools.
- Earth observation and geo-analytics: processing satellite data, predicting climate evolution, and risk mapping.
- Project coordination: providing project management and collaborative engineering.

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Since 2018, RESALLIENCE by SIXENSE has upheld ISO standards, building relationships with international entities like UNEP, CEA, and several universities. Part of the Global ABC Steering Committee, it's an active participant in resilience standards and investment bodies. Catering to a diverse clientele across Europe, Africa, Asia, and the Caribbean, they've completed over 85 projects in 70+ countries. They strive to comprehend extra-financial risks, aiming to make their resilience analysis attractive and unique, while exploring new sectors and regions.

4. INTRASOFT International S.A.
https://www.netcompany-intrasoft.com

Netcompany-Intrasoft is a leading European IT Solutions and Services Group with strong international presence and expertise, offering innovative and added-value solutions of the highest quality to a wide range of international and national public and private organizations. The Company's Head Offices are located in Luxembourg and operates in 13 countries. INTRA is a key player in EU Institutions for over 25+ years. INTRA has a strong R&I record in many domains with a strong focus on integration services.
In the context of the ATLANTIS project, INTRA has the role of the integrator and WP4 Leader (Cooperative prevention, anticipation and mitigation of systemic risks). INTRA is also the Task 4.4 Leader for the DevSecOps CI/CD/CP framework.

5. SingularLogic
http://www.singularlogic.eu

SingularLogic (SLG), a Space Hellas Group member, is a leading Enterprise Software and Digital Integrated Solutions and Services provider for large enterprises and organizations of the Private and Public sectors. SingularLogic capitalizes on its vast experience and know-how to respond effectively to its customers' digital challenges. It empowers its customers attain their strategic goals with contemporary integrated applications for enterprises, organizations, and vertical markets, while provides design, implementation, and support services for Integrated IT solutions of Global leading vendors. SingularLogic has highly skilled personnel with deep business knowledge and digital expertise. It has an extensive portfolio of solutions and services, a national distribution network, a large customer base in all market sectors and, has implemented big-scale IT projects for the Private and Public sectors, nationally and internationally.
SingularLogic's role within the Atlantis project will be of immense value to businesses and organizations striving to strengthen their cyber physical resilience. The company is set to leverage the Atlantis technologies to develop comprehensive resilience mechanisms for cyber-physical threats across critical infrastractures. This integration will significantly enhance the systemic resilience of the software solutions provided by the company.

6. Telecom Slovenia d.d.
https://www.telekom.si/en

Telekom Slovenije, Slovenia's premier provider of top-tier ICT services and solutions. Committed to advancement, they offer users the latest in network technology, services, and exceptional user experiences. By connecting users and simplifying lives, they provide security via a suite of cutting-edge ICT solutions. Renowned for leading the adoption and integration of next-gen mobile and fixed communications, system integration, cloud services, and multimedia content, Telekom Slovenije also boasts Slovenia's most extensive, trusted, and reliable mobile network.
The Telekom Slovenije Group's influence extends well beyond Slovenia. As one of South-Eastern Europe's most comprehensive communication service providers, it operates through subsidiaries in Kosovo, Croatia, Bosnia and Herzegovina, Serbia, Montenegro, and North Macedonia. The Group maintains one of the region's most complex backbone networks, solidifying its place as a key player in the telecommunications landscape.

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In the ATLANTIS project, Telekom Slovenije is positioned to play a crucial role as a large enterprise and research center. The company plans to conduct testing and validation of the ATLANTIS security framework under actual operating conditions. This initiative will assess the framework's accuracy in real Critical Infrastructures (CI), improving security technologies, and facilitating the integration of decision support services into solutions already implemented in interdependent critical infrastructures and services.
In a world that is rapidly advancing technologically, and where the interconnectedness of critical infrastructures across different entities is increasing, multi-layered protection is paramount. Telekom Slovenije recognizes the necessity of maintaining a high level of security to anticipate potential attacks. Given the interconnected and interdependent nature of critical infrastructure systems, the company's involvement in the ATLANTIS project is set to make a significant contribution towards fortifying these systems.

7. SIEMENS AG
http://www.siemens.ro

Siemens AG is a globally influential technology company, operating in industry, infrastructure, transport, and healthcare sectors. It innovatively blends real and digital worlds to provide solutions that enhance efficiency and value for customers. Siemens owns majority stakes in Siemens Healthineers, a medical technology provider, and holds a minority stake in Siemens Energy, an electrical power transmission and generation leader. As of 2021, the company made a net income of €6.7 billion with approximately 303,000 employees worldwide.
Having a significant presence in Romania for 117 years, Siemens operates four factories and five R&D centers there, employing about 2,300 specialists in digital jobs. Siemens Digital Industries offers automation projects and products, while Siemens Smart Infrastructure merges real and digital worlds to enhance living standards and sustainability.
In the ATLANTIS project, Siemens expects to enhance its security offerings for Critical Infrastructures, aiding businesses against various threats and ensuring compliance with regulations. Siemens Technology's proficiency spans across software development sectors with over 45 researchers engaged in large-scale data analytics projects. Despite stiff competition from governmental agencies, NGOs, and commercial companies like IBM and Microsoft, Siemens continues to strengthen the resilience of critical infrastructure.

8. Synelixis Solutions S.A.
https://synelixis.com

Synelixis Solutions S.A. is a high-tech SME, that provides turnkey networking, security, control and automation solutions. By utilizing modern open-source software technologies and open middleware platforms, Synelixis engineers are able to ensure an optimized solution that fulfils the project requirements. Synelixis Solution technology superiority is a result of extensive R&D activities in the areas of cloud and edge computing, IoT, AI/ML and cybersecurity. The product-oriented core competencies of Synelixis include expertise in end-to-end multimedia communications, telecommunications middleware platforms, sensor networks and network security. Synelixis is a company with significant high-tech prospects in the fields of networking and security. Powered by excellent people and strong relationships to globally renowned organizations, Synelixis is a high performance, rapidly growing company.
As part of the ATLANTIS project, Synelixis Solutions will operate as an SME stakeholder. They will take the lead on Task 1.4: ATLANTIS platform architectural specification and Task 3.6: Humans in Vicinity Sensing and Engagement. Additionally, they will contribute to the creation and development of strategies and tools in T4.3 and participate in Task 2.4 ”Information & Meta-data Traceability by design”.

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9. NetU Consultants Ltd.
https://www.netugroup.com

NetU is a leading Information Technology solutions and services organization in the Eastern Mediterranean region, recognized as a major provider of integrated solutions with strong local and international activity. Being a trusted Digital Transformation Partner to medium and large organizations in the Private and Public sectors, for more than 32 years, NetU provides world-class IT solutions in the areas of Systems Integration, Business Solutions, Technology Solutions helping them achieve their corporate objectives.

In this project, NetU is a CI implementor (Border control systems) and CI infrastructure asset owner. Actively participates in 2 out of the 3 Pilots and contributes to T2.4 : Information & Meta-data Traceability by design , T3.1 Interfacing existing CI security systems & patterns extraction, T4.3 Strategies & Tools for cooperative remediation, mitigation, and response, T4.4 DevSecOps CI/CD/CP framework, T5.1 : Pilots Set-up, functional test and penetration testing specifications, T5.3 LSP#2: Cross Domain Large Scale Pilot in Health, Logistics/Supply Chain and Border control, T5.4 LSP#3: Cross-Country Large-Scale Pilot in FinTech/Financial, T5.5 Cross-LSP validation and replication guidelines as Technical experts.

10. Byte Computer S.A.
http://www.byte.gr

BYTE COMPUTER S.A is a leading Greek Information Technology and Communications (ICT) Integrator with a dynamic presence of over 30 years in the Greek ICT Market and focus on the private sector. In particular, BYTE is amongst the five leading ICT vendors that successfully carry out projects in the Greek public sector. Moreover, BYTE has extended its business activities beyond the borders of Greece, providing business solutions in other countries including Cyprus, Albania, Bulgaria, Romania and Serbia. Since its foundation in 1983, BYTE's mission has been the design, development, implementation and support of reliable business solutions, infused with leading edge information technologies to serve its customer needs on an end-to-end basis. The company's superior know-how and long experience, combined with its innovative initiatives in e-Business, e-Signature and e-Learning, have helped Byte become one of the top partners for organizations and businesses that need specialized and advanced solutions to cover their increased operational needs in the modern environment. By offering a wide range of high added-value services, Byte is converting customer investments into measurable business results.
In the context of the ATLANTIS project, BYTE will operate as an SME stakeholder. They will lead Living-Scale Pilots (LSP#2) and contribute to the Blockchain/Distributed Ledger Technology (DLT) solution.

11. Snep d.o.o. Digital Twin platform
http://www.greentwin.eu

A web-based Digital Twin platform utilizing 3D, 4D, and 6D modeling. This platform, geared towards energy management, Overall Equipment Efficiency (OEE), Computerized Maintenance Management Systems (CMMS), and Building Information Modeling (BIM) facility management, is applicable to all assets including buildings, landscapes, and utilities. It encompasses smart building design, technical security, Business Intelligence (BI), and both predictive and preventive maintenance.
The platform enables users to monitor and control assets, processes, or networks for improved system performance. It contributes to the safety of employees and the environment by reducing asset and process-related incidents and preventing unexpected downtime. Furthermore, it allows users to foresee issues before breakdowns occur, ensure timely ordering of the correct spare parts,

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and schedule repairs non-disruptively. With a detailed 3D visualization system, users gain a thorough understanding of their assets, including their locations, performance, and CO2 footprints. This robust platform can generate a digital twin of anything from a vehicle to a sprawling city. For more information, visit www.greentwin.eu.
In the ATLANTIS project, SNEP functions as an SME stakeholder. The company anticipates upgrading its platform with risk assessment, incident notifications (including public-facing ones), machine learning for predictive maintenance, and dynamic risk assessment, along with suggestions on risk mitigation. After the ATLANTIS project, SNEP intends to present the pilot projects to the public and potential clients to drive sales of their solutions.

12. Athens Technology Center S.A.
https://www.atc.gr

Athens Technology Center (ATC) has been designing, developing and supporting leading technology solutions for publishers and news agencies for more than 20 years. From editorial and digital asset management tools, integrated with cross-channel publishing capabilities, to awarded solutions that help media organizations fight misinformation. Since 2018, ATC is one of the private companies actively engaged in the EU's Code of Practice on Disinformation action plan; established the first European Observatory against disinformation (SOMA), provided services monitoring cases of disinformation on behalf of the European Science Media Hub of the European Parliament, and currently supporting 5 multinational Observatories of the EDMO network, with specialized tools for the detection and analysis of misinformation incidents.
Within this spectrum, ATC's contribution to the ATLANTIS project will be based on its extensive background in Fact-Checking and Verification and Social Media Listening solutions & tools (Truly Media, TruthNest, Social Listening Service). In the ATLANTIS project, ATC functions as an SME and Technology Provider/Developer. The company will lead Task 3.2 and contribute to WP1, WP2, WP3, and WP6.

13. Cybercrime Research Institute GmbH
http://cybercrime.de

The Cybercrime Research Institute (CRI) is a think-tank and research institution. Founded in 2009 the purpose of the institute is to provide state of the art research and consultancy service to private and public sector. Since the foundation CRI has been operating on all continents and provided services to numerous governments and international organization. The headquarter with one of the largest libraries in the field of Cybercrime and Cybersecurity literature in the world is located in Cologne, Germany. CRI has three two main pillars. The first pillar is classic research. CRI participates in various research project - both privately funded as well as funded by international institutions such as the European Union. It was part of a consortium that developed the research agenda related to Cybercrime and Cyberterrorism for the European Commission. Members of the institute are and were advising various bodies such as Interpol, Europol, United Nations, International Telecommunication Union, Council of Europe and numerous governments. The researchers affiliated with CRI gave more than 2500 speeches and published more than 250 scientific articles and books in the field of Cybercrime and Cybercrime – including NewYorkTimes bestseller. The second pillar is innovation. CRI hosts an innovation lab that focuses on future technology and the implications for security and society. Current research and developments include artificial intelligence/machine learning, robots and drones. The innovation department is actively developing solutions and in addition participates in different research projects.
Within the ATLANTIS project, CRI focuses on legal and ethics issues. CRI already carried out significant research related to the applicable legal and ethics frameworks for the project (especially the large scale pilots) and contributed to a main deliverable. Throughout the lifespan of the project CRI will continue to monitor the highly dynamic policy, legal and regulatory

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environment, update partners on relevant developments and serve as a focal point for questions related to law and ethics.

14. Luka Koper
https://www.luka-kp.si/en

The company Luka Koper provides port and logistics services in the port of Koper, which is a multipurpose port at the intersection of transport routes. The core business of the port comprises the handling and warehousing of a variety of goods, supplemented by a range of services on goods and other services, providing customers with comprehensive logistic support. With a reliable port service and an extensive network of maritime and rail connections, we support global logistics solutions to the heart of Europe. Their core business covers cargo handling and warehousing services for all types of goods, complemented by a range of additional services for cargo with the aim of providing a comprehensive logistics support for their customers. The company manages the commercial zone and provides for the development and maintenance of port infrastructure.
Luka Koper company is a member of the ATLANTIS project consortium. The Slovenian pilot case will focus on protecting autonomy from systemic risks and ensuring business continuity in multimodal transport (port, rail and motorway), energy, information and communication critical infrastructure and services. In addition, the multimodal pilot will focus on important approaches to improve information sharing mechanisms at different operational levels.

15. Port of Rijeka Authority
https://www.portauthority.hr/en

Port of Rijeka Authority is an institution founded by the Government of the Republic of Croatia to manage, plan and develop the largest national port of Rijeka.

The port area consists of five port basins (Rijeka, Sušak, Bakar, Omišalj and Raša) with twelve specialized terminals. Its core responsibilities are to grant concessions, develop strategy plans and infrastructure projects, harmonize and supervise concessionaires according to the Croatian and European laws while regulating order, safety and security in the port.
Due to a large-scale investment strategy exceeding 500 M €, the Authority intends to develop port of Rijeka as the most desirable intermodal center in the North Adriatic region. The investments provide an opportunity to carry out well-prepared projects that focus on expanding existing infrastructure, terminals and piers, and related port and intermodal capacities with a particular focus on implementing smart and innovative energy solutions.
Port of Rijeka Authority will participate by providing information regarding its Critical Infrastructure and analyze use cases and system risks, define countermeasures and contribute to the European CI security policy in order to reach advanced CI security at tactical and strategic level.

16. DARS
http://www.dars.si

DARS d.d. is a motorway concessionaire based in Slovenia. The organization is dedicated to building, managing, and maintaining the motorways and expressways of Slovenia, thereby connecting the country and providing safe and comfortable mobility to users. DARS d.d. prioritizes road safety and ensures uninterrupted traffic flow on the motorway network. The organization places significant emphasis on promoting safe and tolerant driving styles among users and the general public, as well as providing regular and timely updates on traffic conditions.
In the context of the ATLANTIS project, DARS d.d. serves as a Public Institute, Professionals, Research centres, and Universities. DARS d.d. plans business exploitation of the project's results

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to enhance traffic safety and traffic flow. The value proposition of DARS d.d. in this project lies in the opportunities stemming from the project's outcomes.

17. Slovenske Zeleznice
https://www.sz.si/en

Slovenske železnice, d. o. o. (SZ) is a state-owned limited liability company based in Slovenia. The company operates as a national rail transport operator for passenger and freight services and as an infrastructure manager for the Slovenian railway network. It has a holding organization structure with various subsidiary companies, providing services like maintenance and management of public railway infrastructure, rail traffic management, passenger and freight carriage on public rail infrastructure, train haulage, and technical vehicle management. With many years of experience in rail transport, SZ is internationally oriented, providing services abroad, participating in EU projects, and being a member of international organizations.
In the context of the ATLANTIS project, SZ serves as the operator of the national railway network and railway critical infrastructure. It's also the owner and operator of rail freight and passenger transport. Through the ATLANTIS project, SZ aims to test and verify the resilience of critical rail assets and business continuity in the test area. The operational data provided by SZ will be used to prepare the test environment. The outcomes of the testing will be used to adopt and enhance security measures to protect critical railway infrastructure and ensure the continuous operation of the railway infrastructure and traffic.

18. Petrol, Slovenska energetska družba, d.d
https://www.petrol.eu

Petrol is energy for life. The largest Slovenian energy company with a strong presence in south-east Europe, the Petrol Group is spearheading the transition to cleaner energy sources, putting the user first. For over 75 years, the Petrol Group has been improving daily life in the Adriatic region. We are the first stopover on each journey and the energy for all the upcoming changes. Supported by new technologies, Petrol is improving energy efficiency, investing in renewable sources and transforming established ways of how energy products are sold and used. We are breaking new ground with sustainable mobility and are proud to be part of exciting pilot projects that highlight all that we are and all that we can do. Partnering with the industry, the public sector, research centres, suppliers and households, Petrol is leading the way towards achieving key environmental goals, recognizing that energy is us, together.
In the context of the ATLANTIS project, Petrol serves as a large enterprise stakeholder. It plans a business exploitation of the project outcomes. For the ATLANTIS project, Petrol will provide information associated with rail track and loading station in the port, analyze use cases and system risks, define countermeasures, and contribute to the European CI security policy. The exploitation of the project is directly related to offering advanced CI security at both tactical and strategic levels. Petrol, as an end user, could test ATLANTIS solutions, provide valuable feedback, integrate it with its internal systems, and potentially be among the first adopters of the solutions and results. The expected benefits include enhancing preventive security as a service, upgrading existing solutions and security processes, and fostering and supporting the creation of a culture of security.

19. Ferrovie dello Stato Technology S.p.A.
https://www.fstechnology.it

FSTechnology S.p.A is the ICT Company of the Ferrovie dello Stato Italiane Group (FS Group) that manages the existing FS ICT landscape composed of more than 800 application systems and more than 450 employees with ICT professional skills. FSTechnology's primary focus is the adoption of

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emerging technologies such as blockchains, artificial intelligence, robotics, and the Internet of Things (IoT), all of which rely on modern cloud computing infrastructure and innovative 5G networks.
In the context of the ATLANTIS project, FSTechnology serves as a CI owner of the Italian railway network infrastructure and is a leader in the execution of Large-Scale Pilot Studies (LSPs). FSTechnology plans to undertake business exploitation of the ATLANTIS security framework. The company expects to conduct testing and validation of the ATLANTIS framework under real operating conditions. This will allow an assessment of the framework's accuracy in a real critical infrastructure (CI) and cross-CI LSPs. Validation of the ATLANTIS framework in real conditions could facilitate improvements in security technologies and enhance the integration of decision-support services in the solutions currently implemented on the Italian railway network (Trenitalia).

20. JRC Capital Management
https://jrconline.com

JRC Capital Management Consultancy & Research GmbH is a financial institution focusing on quantitative investment strategies for trading in the most liquid assets, for instance Forex markets. JRC was founded in Berlin in 1994 and offers services to institutional clients as well as wealthy private individuals in the fields of asset management, brokerage and financial research & development. Apart from the front office, JRC's R&D department with its highly skilled team of specialists who combine economic knowledge and financial modelling expertise with mathematical and IT-background is central to the company. JRC is regulated by the BaFin (Bundesanstalt für Finanzdienstleistungsaufsicht) and stands under the supervision of the German Bundesbank. JRC's business fields are:

- Independent asset management for institutional investors and wealthy private clients
- Development and implementation of algorithmic trading- and prognosis systems for Forex and Derivatives
- Development of funds and structured products in co-operation with renowned financial institutions
- Development of Overlay Management Strategies for Currency Risk Hedging

JRC's core competence lies in the development and utilization of highly specialized, fully automatic prognosis- and trading systems that serve as the basis for their trading and asset management. The focus of activities lies on algorithmic trading of alternative investments as currencies and derivatives. Through their engagement in EU and national scientific research projects JRC constantly benefits from the exchange with leading researchers and receives new impulses for their core-activities through this co-operation.

As an SME stakeholder in the ATLANTIS project, JRC plans to engage in business exploitation. The company expects to utilize the ATLANTIS tools within its trading environment and aims to serve as a reference installation for small financial institutes as potential clients. It also plans to support solution providers among project partners by granting them access to the German market through JRC's business network in the financial industry, particularly focusing on cyber protection and validation of PTN services without using GNSS support.

21. CaixaBank S.A.
https://www.caixabank.es/particular/holabank_en.html

CaixaBank is the leading financial group in Spain and one of the most significant in Portugal, where it controls 100% of BPI. The bank, chaired by José Ignacio Goirigolzarri and directed by Gonzalo Gortázar, has around 21 million customers in the Iberian market, and the largest commercial network on the peninsula. It has approximately 6,300 branches and 15,400 ATMs, and is the industry leader in the digital banking sector with 10 million digital customers. CaixaBank is committed to a socially-responsible universal banking model, based on trust, quality, and specialised products and services adapted to each segment. Its mission is to contribute to the financial well-being of its clients and to support the progress of society. It was awarded the "Best Bank in Spain 2016" and "Best Bank in Digital Transformation in Western

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Europe" awards for excellence by Euromoney and "2019 Best Bank in Western Europe" (Global Finance). The innovative effort inherent in the culture of the enterprise to be a reference company in technology in the financial market, based on criteria of accessibility and usability. Similarly, technological innovation is one of the strengths of CaixaBank, constantly striving for the innovation, necessary for an organization in order to enhance the services it offers to its valuable customers along with the whole community in general. Moreover, it is an active stakeholder in the cybersecurity innovation for the financial sector in Europe and it is currently participating in several H2020 projects related to cybersecurity and big data (CONCORDIA, ENSURESEC, INFINITECH, TRAPEZE, AI4CYBER).

As professional stakeholders in the ATLANTIS project, CaixaBank is interested in business exploitation. The bank seeks to enhance its cyberattack and risk awareness and reduce its IT risk level through the use of ATLANTIS tools and methodologies.

22. Hygeia
https://www.hygeia.gr/en

Hygeia Hospital (HYG) is a member of the Hellenic Healthcare Group (HHG) which is the largest private healthcare provider in Greece and Cyprus. HHG owns 8 hospitals in Greece and Cyprus and several Diagnostic Centres. It serves more than 1.5 million patients per year collaborating with more than 6.500 doctors with 1.700 beds.HYG is the first private clinic in Greece which was accredited with the Joint Commission International (JCI) accreditation, the world's leading accreditation for quality and safety in healthcare services. In its 50 years of operation, HYGEIA has been driving the development of private healthcare in Greece and has been continuously enhancing its services both on an infrastructure and organization level. It also ensures its alignment with technological developments in medical science, standing out as a point of reference in Greece and Europe.

HYG's interest in the technologies and outcomes of ATLANTIS project results is grounded in its continuous efforts to ensure the highest levels of quality, safety and security for the offered healthcare services. We have established the holistic Quality, Health, Safety and Environmental Policy of HYGEIA based on specific VALUES, which govern all our operations, is covering the entire range of services offered and hospital infrastructure. As an end-user, we support the definition of the requirements and needs for the ATLANTIS technologies and we are looking forward for novel techniques to be integrated in our security and safety processes and procedures.

23. SITAF S.p.A.
https://www.sitaf.it

Sitaf SpA (Società Italiana per il Traforo Autostradale del Frejus) is a joint-stock company that has been operating since 1960. It built the Frejus Tunnel (T4) between Italy and France and, in partnership with ANAS (Italian National Road Network Agency), the Italian Motorway A32 Torino-Bardonecchia. The management of the motorway is granted based on a public concession from the Italian State through ANAS.

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As a large enterprise (LE) stakeholder in the ATLANTIS project, Sitaf aims for business exploitation. The company's goal is to create a Critical Infrastructure (CI) Digital Twin component that co-models the physical and cyber aspects of critical infrastructure. This component will enable systemic and continuous risk analysis models and an active monitoring system for both immediate emergency responses and predictive maintenance of critical infrastructures, integrated with the Tunnel Control Centre.

24. Service Départemental d'Incendie et de Secours de la Savoie (SDIS73)
http://www.sdis73.fr

SDIS73, based in France, is a civil protection service specializing in fire and rescue operations. They are tasked with the prevention and protection from various types of disasters, safeguarding individuals, property, and the environment, and providing emergency relief and medical evacuation.

The organization operates in Savoy, the most mountainous French department, and is equipped to handle a variety of specific risks associated with buildings, technological infrastructures, and natural disasters.
In the project, SDIS 73 contributes as a civil protection entity, involving fire fighters, first responders, emergency medical services, search and rescue teams, and mountain rescue teams. They aim for sustainability exploitation, with a focus on individual exploitation.
In ATLANTIS project, SDIS 73 serves as first responder participating member and as a specialist in the critical infrastructure of the Fréjus tunnel, largest cross-border tunnel in france. The SDIS73 is therefore be involved, in the elaboration of the PILOTS and provide its expertise in the field of risk management in particular at the level of the development of scenarios related to systemic risks.

25. KEMEA – Centre for Security Studies
http://www.kemea.gr/en/kemea/about-kemea

The Center for Security Studies (KEMEA) is a leading research institution in Greece dedicated to the study of security issues at the national and international level. Established in 2005, KEMEA is an independent organization that operates under the auspices of the Ministry of Citizen Protection. KEMEA's primary mission is to conduct research, analysis, and training in the field of security studies. Its areas of expertise include counterterrorism, cybersecurity, crisis management, border security, and the protection of critical infrastructure. KEMEA's research and analysis are focused on developing policy recommendations and practical solutions to enhance national and international security. KEMEA has a multidisciplinary team of experts from various fields such as law enforcement, military, academia, and industry. Its researchers and analysts have extensive experience in security-related issues and collaborate with domestic and international organizations, governments, and academic institutions to achieve KEMEA's goals. In addition to research and analysis, KEMEA provides training to security professionals in Greece and abroad. Its training programs cover a wide range of topics such as crisis management, emergency response, cybersecurity, and counterterrorism. KEMEA's training courses are designed to enhance the skills and knowledge of security professionals, enabling them to respond effectively to complex security challenges. KEMEA is also actively engaged in public outreach and awareness-raising activities. It organizes seminars, workshops, and conferences to inform the public about security-related issues and promote dialogue and cooperation between different stakeholders. Overall, KEMEA is a vital institution for security studies in Greece and the wider region. The organization's research, analysis, and training initiatives are aimed at bolstering global and domestic security, and promoting a safer and more secure world.
As a research organization stakeholder in the ATLANTIS project, KEMEA plans to focus on research exploitation and internal considerations.

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26. Institute of Corporate Security studies
https://www.ics-institut.si

ICS is a non-government research institute with a vision to create top-level knowledge, technologies, and processes in the area of corporate security. With a range of professional services, ICS comprehensively manages the entire spectrum of security risks in business and other environments, creating a safer and richer future for the users, and beyond.
In close relation with entities in both, public and private domains, ICS provides for a long-term development, promotion, and sharing of scientific and professional knowledge in the field of corporate security. With this, ICS directly influences effective cyber, physical, systemic, and hybrid risk management in business, national security, and, especially, critical infrastructure, thus helping organisations achieve better security, excellence, and competitive edge.
ICS will bring the knowledge and experience in the security domain gained over the years to undertake three key responsibilities, namely (1) co-develop a methodology for a systemic risk and threat analysis, (2) coordinate the largest pilot cluster involving 4 neighbouring EU countries, 3 critical sectors, and 12 CI operators and authorities, and (3) coordinate the project's impact generation efforts.

27. European Union Satellite Centre
http://www.satcen.europa.eu

SatCen is the European Union's geospatial intelligence agency, providing specialised analysis services across the fields of space, security and defence. It was founded in 1992 as part of the Western European Union to provide analysis products derived from satellite imagery and was incorporated into the European Union as an agency in January 2002. The wide spectrum of tailored analysis services SatCen now provides to its users in the EU, its Member States, as well as for international partners like the UN, OPCW and the OSCE, contribute directly to political decision-making, as well as to the planning and conduct of civilian and military action in the field of CFSP and CSDP.
The Centre also supports the early warning of potential crises to allow timely diplomatic, economic and humanitarian measures to be taken. At the same time, the Centre is mandated to maximise synergies and complementarities with other EU activities in space and security, which provides the foundation for inter alia its key role as the entrusted entity for the Copernicus Service in Support to External Action (SEA) and other Commission funded projects and activities.
In ATLANTIS, SatCen participates through its Research, Technology Development and Innovation unit, to demonstrate the benefit of Earth Observation data for critical infrastructures' monitoring and risk prevention capabilities.

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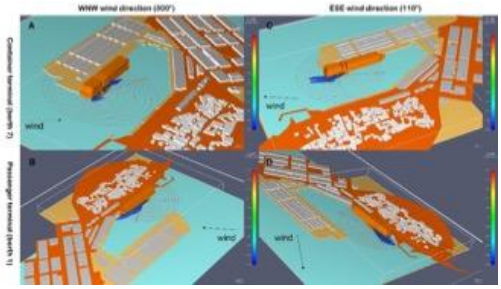
28. University of Rijeka, Faculty of Maritime Studies
https://www.pfri.uniri.hr/web/en

The Faculty of Maritime Studies at the University of Rijeka, Croatia, is the oldest Maritime Education and Training institution of higher education in the Adriatic region. With a rich portfolio of academic degrees spanning across fields like Transport Technology, Logistics and Management, Nautical Science and Maritime Safety, Marine Engineering, and Marine Electronics and Communications, this institution is a powerhouse of expertise in maritime disciplines.
In the ATLANTIS project, the University of Rijeka's Faculty of Maritime Studies will employ its considerable experience from more than 500 scientific and professional projects to verify and validate the ATLANTIS security framework in port infrastructure operations. With direct competitors in the academia and scientific community, the faculty's commitment to pioneering research will enable it to carve out a distinct position within this project.
The faculty's value proposition extends to conducting training activities for the end users involved in Large-Scale Pilots (LSP) and disseminating the ATLANTIS project's research results to the scientific community and graduate students. This knowledge will be shared via a graduate study Critical Infrastructure course and a Massive Open Online Course (MOOC).
After the project concludes, the faculty plans to sustain the project's impact by presenting the ATLANTIS results and solutions through various dissemination activities, scientific work, and knowledge transfer to students. By embedding the learnings from the ATLANTIS project into the educational journey of its students, the faculty will ensure that the project's legacy continues to impact and influence the future maritime leaders.

29. Jozef Stefan Institute
http://www.ijs.si

Jožef Stefan Institute (www.ijs.si) is the leading Slovenian research organization involved in many EU and other international projects. It is responsible for a broad spectrum of basic and applied research in the fields of natural sciences and technology. The staff of around 1100 specialize in research in physics, chemistry and biochemistry, electronics and information science, nuclear technology, energy utilization and environmental science.

Department for inorganic chemistry and technology is among other topics involved in process safety and security research and application studies in a number of EU projects and consultancy services to the industry and authorities, both national and international. JSI main role in ATLANTIS project is to contribute with the risk and resilience management methods and tools, as well as to support LSP#1 implementation and demonstration.



30. CEA List institute
https://list.cea.fr/en

CEA (Commissariat à l'Energie Atomique et aux Energies Alternatives) is a French Research and Technology Organization, with more than 16 000 staff members, focusing on low-carbon energies, defense and global security, information technologies and health technologies, as well as fundamental research. CEA Tech division, focusing on technological research for industry includes the CEA LIST (Laboratoire d'Intégration des Systèmes et des Technologies) research institute,

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which is specialized in smart digital systems. The 700 researchers, engineers and technicians from CEA LIST perform research in partnership with the major industrial players in the nuclear, industrial, automotive, aeronautical, security, defense and medical fields and thus investigate and develop innovative solutions corresponding to their requirements. Activities span from conceptual design of systems to pre-industrial prototypes. CEA LIST promotes technology transfer and encourages innovation, particularly by assisting the emergence of start-up companies.
Within CEA LIST, the Communicating Systems Laboratory (LSC) develops innovative networking technologies (protocols and software) to enable AI-powered trusted networks featuring high levels of performance, security, resiliency, agility and scalability for Internet of Things (IoT), industrial networks, 5G and next-generation mission-critical networks, for a large range of applications.
Within the ATLANTIS project, CEA LIST is leading the task focusing on interfacing existing critical infrastructure security systems and extracting patterns. CEA LIST's responsibilities encompass designing specific sensors for CI monitoring, developing adapters for accessing and unifying information from diverse sources, implementing data analytics components, and utilizing data-driven methodologies for automatic anomaly detection in complex time-series data, ultimately enhancing the resilience of critical infrastructures against systemic risks.

31. Centre of Research & Technology Hellas
https://www.certh.gr
https://vcl.iti.gr

The Centre for Research and Technology Hellas (CERTH) is one of the largest research centres in Greece. It was founded in 2000 and is located in Thessaloniki, Greece. The mission of CERTH is to promote the triplet Research – Development – Innovation by conducting high quality scientific research and developing innovative products and services while building strong partnerships with industry (national and international) and strong collaborations with research centres and universities in Greece and abroad.
The Visual Computing Lab (VCL) of CERTH's Information Technologies Institute is contributing with AI research in disinformation, explainable AI and Federated Learning architectures for protecting European Critical Infrastructures. In addition to that, CERTH is responsible for the dissemination activities with Dr. Semertzidis being the dissemination manager of ATLANTIS project.

32. Links Foundation
https://linksfoundation.com

LINKS is a private research center founded by Politecnico di Torino and Compagnia di San Paolo that counts on around 150 researchers to promote, lead, and bolster the innovation processes. The foundation oversees technical-scientific disciplines in digital technology and regional development, such as Artificial Intelligence, Connected Systems, IoT, Cybersecurity, Advanced Computing Systems, and Space Systems.
The area involved in ATLANTIS is Artificial Intelligence, Data, and Space (ADS), which focuses on the realization of intelligent digital applications capable of addressing the key challenges associated with industrial and societal needs, coupling the use of Artificial Intelligence and Data often received from satellite systems in a multimodal and multiscale environment.

33. Vicomtech Foundation
http://www.vicomtech.org

Vicomtech Foundation is a Research & Technology Organisation (RTO) based in Spain. Specifically, their Department of Digital Security and Cybersecurity applies digital security technologies to reduce risks affecting organizations. Their approach is versatile, dealing with a range of sectors including industrial cybersecurity, protection of sensitive medical information, detection of suspicious patterns in finance, and security analysis on the internet and Dark Web.

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In the project, Vicomtech acts as a research center and a part of the cybersecurity industry. They will be exploiting the research outputs of the project both individually, through Vicomtech's software libraries, jointly with tech partners on the integrated platform or solution, and via community-based exploitation (open-source).
Their target in Atlantis is focused on the identification, gathering and analysis of measures related to TIC background activities that support the cybersecurity systemic risks. The width of the exposition surface and the connections and dependencies between information assets set a baseline risk for a system that is changing each time the system is modified. This "background noise" risk is commonly ignored by many of the risk management methodologies that are very static yet, but it can't be ignored if the system should be aware of its inner security status. Their goal is to provide information about the evolution of these risks along the time in a simple and interpretable way, to be included as an additional source to any risk management methodology used in the project as part of preventive technologies to reduce systemic risk.

34. Ministère de l'Intérieur, Securite-civile

MINISTÈRE
DE L'INTÉRIEUR
ET DES OUTRE-MER
Liberté
Égalité
Fraternité

The French Ministry of Interior, also known as DMIA, is a public institute based in France. The ministry is responsible for citizen security within the country.
Their participation in the project is classified under business exploitation. DMIA aims to provide enhanced security and protection to European citizens. Their work will contribute to the European CI security policy, a task led by DMIA itself.
The DMIA's commitment to exploitation is to utilize the results of the project to enhance their security policies and practices, thus creating a safer environment for citizens. Their unique value proposition is the contribution to citizen safety at a national level through the implementation of the results from this project.

35. Ministry of Infrastructure of the Republic of Slovenia
https://www.gov.si/en/state-authorities/ministries/ministry-of-infrastructure

REPUBLIC OF SLOVENIA
MINISTRY OF INFRASTRUCTURE

The Ministry of Infrastructure ensures continuous improvements to Slovenian transport and energy infrastructure. The ministry is dedicated to the continuous improvement of Slovenia's transport infrastructure, which includes the maintenance, planning, management, and enhancement of rail, road, air, cable car, maritime, and inland waterway transport. The ministry is striving to improve transport safety and ensure that transport conditions are more modern, economical, and green.

The Ministry's engagement in the project falls under the business exploitation type. Their exploitation profile revolves around enhancing traffic safety and traffic flow in the country.

36. Government Information Security Office of the Republic of Slovenia
http://www.uiv.gov.si/en

URSIV

The Government Information Security Office (URSIV) is the competent national authority in the field of information and cyber security in Slovenia. It also acts as a single point of contact for international cooperation in this field.

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URSIV incorporates the Government CSIRT and finances the National CSIRT which is responsible for cyber incident notifications in critical infrastructure.
Although URSIV is quite new organisation, established in this form in Summer 2021, it has already assumed many new responsibilities. From the Ministry of Public Administration, it took over the responsibility for critical infrastructure in information and communication networks and systems. URSIV is in the process of establishing the National Cybersecurity Coordination Centre (a part of EU network of NCCs) and will also function as the National Cybersecurity Certification Authority. URSIV is responsible for the preparation and implementation of the National Cybersecurity Strategy and for drafting proposals for legislation in the field of information and cyber security.
URSIV performs and coordinates activities at national level for building capacities, raising awareness and to increase the public-private cooperation in the field of cybersecurity. Project Atlantis will provide valuable experience and novelties which will help URSIV in its aim to increase resilience of critical infrastructure to cyber threats.

37. Ministry of Citizens Protection, Hellenic Police
http://www.astynomia.gr

The Hellenic Police is subordinate to the Ministry of Citizen Protection and operates as a Law Enforcement Agency in order to:

- Ensure peace and order as well as citizens` unhindered social development, a mission that includes general policing duties and traffic safety
- Prevent and interdict crime as well as to protect the state and the democratic form of government within the framework of constitutional order, a mission that also includes the implementation of public and state security policy;
- Protect external borders of the country and EU, as a vast area of sea and land borders coincide with the EU borders with third countries .

The Hellenic Police comprises both central and regional services and its Headquarters is the supreme authority over these services. Project ATLANTIS is expected to expand the existing expertise in best practices and technologies which will be implemented into policies and methods for the enhancement of the CI security and the optimization of the services to the European citizens.

38. Ministero Dell' Interno, Dipartimento di Pubblica Sicurezza, Polizia di Stato

MINISTERO
DELL'INTERNO

The Italian Ministry of Interior, Department of Public Security (MDI) is a public institute based in Italy. This body participates in the project via the specialized Italian Police Force that is responsible for Road, Rail, and Communications Security.
As a part of the project, the MDI aims to exploit business opportunities that would lead to enhanced security and protection for European citizens. The type of exploitation that the MDI involves in the project falls under the category of business exploitation.
The exploitation profile of MDI includes offering enhanced security and protection to European citizens. Furthermore, MDI contributes to the European Critical Infrastructure (CI) security policy, which plays a pivotal role in maintaining and improving the security measures for critical infrastructure systems across Europe.

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Project Coordinator
Mr. Gabriele Giunta
Engineering, Italy
gabriele.giunta@eng.it

Technical Manager
Mr. Artemis Voulkidis
Synelix, Greece
voulkidis@synelix.com

Web

LinkedIn

https://www.atlantis-horizon.eu/

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