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EPSILON is an international engineering, consulting and research & innovation (R&I) group specializing in **Geoinformatics, Aerosystems, Maritime, Climate & Water, Environment, Ocean, Ecosystems, Natural Hazards, Energy, Homeland Security, and Economics & Management.**

Established in 1985 in Boston (MA, USA) and expanding to Europe in 1990 with headquarters in Greece and Malta, EPSILON operates globally through a network of legally independent companies, with key offices in Greece, Malta, Bulgaria, Cyprus, Germany, Italy, and supported by allied organizations across Europe in partnerships with leading technology institutions.

EPSILON delivers comprehensive solutions, outsourcing, and specialized training. Renowned for its cutting-edge products—including geospatial database infrastructures, advanced navigation systems, and innovative environmental technologies—EPSILON empowers clients to address complex challenges through sustainable, technology- and AI-driven approaches.

Overview

- **Geomatics:** Services in SDI, GIS, LIDAR, and remote sensing technologies. Expertise includes video mapping, geodatabases, GIS deployment, and custom applications for various sectors. Technologies support applications in environmental management, security, and healthcare.
- **Aerosystems/Aviation:** Collaboration with Aviontek GmbH enhances EPSILON's capabilities in aerospace and aviation solutions. Services include 3D aerodrome geodatabases, aviation applications, and aircraft certification. Over 20 years of experience in air navigation systems and R&D projects.
- **Marine & Maritime:** Promotion of sustainable maritime innovation through ship design and green shipyard solutions. Expertise includes lifecycle assessment (LCA), compliance with maritime regulations, and EU-funded projects. Focus on maritime safety, logistics, and workforce development in the blue economy.
- **Climate & Water Resources :** Integrated solutions for water management, including climate modeling and stormwater management. Services cover water supply systems, groundwater management, and wastewater treatment. Emphasis on regulatory compliance and environmental impact assessments.
- **Environment & Waste:** Since 1985, specialization in environmental management, waste management, and natural resource conservation. Services include climate change adaptation, pollution assessments, and ecosystem conservation. Focus on compliance with environmental regulations and sustainable development practices.
- **Homeland Security & Natural Disasters:** Provision of integrated solutions for homeland security and disaster management. Services include risk assessment, natural disaster modeling, and emergency management systems. Utilization of advanced technologies for surveillance and monitoring critical infrastructures.
- **Energy:** Expertise in renewable energy and energy efficiency. Services include smart infrastructure development, carbon management, and energy market analysis. Focus on supporting clients in transitioning to sustainable energy systems.

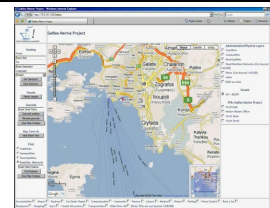


- **Economics & Project Management:** project management services combining technical and administrative expertise. Services include feasibility studies, market research, and regulatory compliance support. Emphasis on capacity building and training for project management.
- **Original Research & Innovation:** Participated in over 100 European Commission-funded projects since 1990. Focused today in maritime, environment, ecosystems, geoinformatics, civil protection, energy, Agriculture
- **Theories & Commercial Models:** Developed various environmental modeling systems for USEPA and other international bodies. Expertise in mathematical modeling in multiple sectors.
- **Countries Worked:** Worked in over 60 countries in Europe, America, Africa, Asia. Engagement with international organizations and institutions enhances global reach.
- **International Organizations Experience:** Collaborated with over 35 international organizations, including the EC, UN, WHO, and World Bank. Experience in projects funded by various international bodies supports diverse initiatives.

Geomatics

EPSILON offers comprehensive Geomatics services across the full spectrum of SDI, GIS, IST, LIDAR, Copernicus, and Space monitoring technologies, including geodata capture, geo-statistics INSPIRE/OGC-compliant data and geo-systems integration, and geo-marketing solutions through advanced IST/ICT platforms

- **Video Mapping:** Expertise in terrestrial and mobile video mapping (e.g., TeleAtlas partner), LIDAR, space-based lasers, remote sensing, aerial mapping, and high-resolution imaging. Our technologies support applications in environmental management, security and safety systems, global monitoring, surveying, healthcare systems, land and marine tracking.
- **Geodatabases:** Development and management of geodatabases using ESRI technologies (allied to ESRI-DE), covering land, water, air, marine environments, ecosystems, health, utilities, and transport sectors, fully aligned with INSPIRE, OGC, ISO, and other international standards.
- **GIS & Remote Sensing:** Deployment of web-based technologies for earth observation, 3D city modeling, territorial control, environmental monitoring, and resource management, ensuring compliance with INSPIRE Directive.
- **Custom Applications & Landmarks:** Design of geo-databases, web-GIS, and IST/ICT systems on advanced or GRID computing platforms, supporting sectors such as natural resources and disaster management, transportation, geotechnics, civil engineering, health, e-government, smart cities, and landmarks for the Google Maps platform.
- **Products & Apps:** Solutions for air, land, and marine navigation, fleet and asset management, non-ILS aircraft landing, mobile LBS applications, environmental and wildfire management platforms e.g., ArcFUEL, and civil protection command and control systems (e.g., C4I Athens Olympics 2004).



Aerosystems/Aviation

EPSILON, in collaboration with its allied company [Aviontek GmbH](#) offers exceptional expertise in space, aviation, avionics, mobile, and satellite telecommunications. Leveraging state-of-the-art geoinformatics, earth observation, and remote sensing technologies, EPSILON provides comprehensive solutions for aerospace, aviation products, and earth resource planning. Their services encompass engineering and consulting, modeling, R&D, database development, product innovation, aviation applications, training, and specialized support for agencies, airports, aerodromes, aviation authorities, and aircraft certification processes. Key qualifications include:

- **3D Aerodrome Geodatabases:** Development of 3D aviation navigation aids (hardware, software, data, Aerodrome Spatial Data Infrastructures (SDIs) based on ARINC standards; Turn-key systems integrating satellite communications, navigation, and earth observation; Expertise in programming (C++, Java, C#, FORTRAN, etc.), databases (Oracle, MySQL), and GIS technologies.



- **Aviation Applications:** Utilization of Google Earth™, MS Virtual Earth™, ESRI ArcGlobe™, and Aeronautical Solution™ technologies, Integration with terrestrial, satellite, and web-based systems).
- **Microwave Systems:** Development of components for space & ground applications; Electromagnetic modeling and s/w tools via [Epsilon Italia srl](https://www.epsilonitalia.it).
- **Aircraft Certification:** For turbojet, turboprop, and seaplane programs through Aviontek GmbH and Epsilon-Bulgaria, Aberon, Kleos Systems SA)
- **Operational & Technical Management:** Support for operator agreements, marketing, and technical assistance across pre- and post-sale phases).
- **Project Facilitation:** Services for civil, military, cargo, and passenger operations via aerosystems applications; Consulting in civil protection, security, environmental aspects, seaplane operations via aviation technologies.
- **Air Navigation Systems:** With over 20 years of pilot enroute experience, EPSILON (in cooperation with [KLEOS Defence Systems SA](https://www.kleos.com) and several European Partners) delivers advanced navigation systems, UAV platform solutions, and high-precision, low-cost 2D/3D satellite-based navigation aids. Through partnerships, including Kleos SA, EPSILON extends advisory services in: Airline strategy and business development; Airport planning and air traffic management; Aviation safety, security, and sustainability; Aircraft acquisition, leasing, and defense aviation innovation; Operational efficiency, alliances, and workforce development.
- **HORIZON/R&D/RTD/R&I/Products:** EPSILON broad R&D and Horizon Europe (100+ projects) further strengthens their position as a leader in delivering integrated, innovative aviation solutions. Participation in SESAR, CleanSky and EDF/PESCO projects



Marine & Maritime

EPSILON drives sustainable maritime innovation through ship design, green shipyard solutions, and smart vessel operations. Expertise includes lifecycle assessment (LCA), decision support systems (DSS), AI-based energy management, and compliance with IMO, MARPOL, and SOLAS standards. We deliver solutions in maritime safety, public health, logistics, and security, including defense projects like Offshore Patrol Vessel (OPV) specifications. Leveraging EU-funded projects, CubeSat, and AUV technologies, EPSILON supports the blue economy and maritime workforce development through strong RTD partnerships via:



<https://shippingsaas.eu/>

- **Commitment to Maritime Engineering Sustainability, Innovation:** Dedicated to advancing sustainable practices and maritime innovation, leveraging innovative digital technologies across shipbuilding, port operations, and maritime logistics. Through strategic use of EU funding, EPSILON drives solutions aligned with the sustainable blue economy, focusing on environmental compliance, operational efficiency, technological advancements.
- **EU-Funded Maritime Projects:** Successfully contributed to flagship projects such as HOLISHIP for holistic ship design optimization, SMARTSHIP for AI-driven energy management, and VESSELSLIFE, applying LCA, LCC, and DSS to optimize ship lifecycles. The HS4U project demonstrates our expertise in maritime public health risk management, while ECOSHIPYARD (ESY) and FLEETfor55 highlight our commitment to green shipyard practices and fleet decarbonization strategies.
- **Shipyards, Compliance, Security and Security:** Knowledge in maritime strategy, regulatory compliance (IMO, MARPOL, SOLAS), port operations, and logistics optimization (e.g., specifications for the OPV of the Armed Forces of Malta (AFM) displaying expertise in defense vessel design, maritime security, and operational readiness. Security solutions using CubeSat technology and Autonomous Underwater Vehicles (AUVs) for surveillance, defense, and piracy prevention.
- **Maritime Workforce Development and Knowledge Transfer:** Through collaboration with universities and RTD centers, EPSILON supports workforce development, ensuring the transfer of expertise in digital maritime technologies, sustainable practices, defense operations, and regulatory frameworks to future industry professionals.



Climate, Water Resources, Water Supply, Groundwater, Wastewater, Irrigation

EPSILON offers a comprehensive suite of services in climate science, water resources, and water engineering, providing integrated solutions that address the full water cycle—from source to treatment and reuse. With decades of experience and a multidisciplinary team, EPSILON supports clients in achieving sustainability, regulatory compliance, and resilience in water-related projects. Key Qualifications:

- **Climate and Hydrological Modeling:** Advanced climatological and hydrological analyses to assess water availability, forecast droughts and floods, and support climate adaptation strategies.
- **Integrated Water Resources Management:** Basin and catchment management plans, optimizing water allocation among sectors while ensuring ecological balance.
- **Water Supply and Distribution Systems:** Designs and implementation of efficient water supply networks, including aqueducts, reservoirs, and distribution pipelines, ensuring reliable access to clean water.
- **Groundwater Exploration & Management:** Expertise in hydrogeology enables us to assess aquifer potential, design sustainable extraction systems, and implement recharge solutions via modelling.
- **Wastewater Treatment & Reuse:** We offer solutions for wastewater collection, treatment, and reclamation, promoting water reuse and compliance with environmental standards.
- **Stormwater and Flood Management:** EPSILON develops stormwater drainage systems and flood mitigation measures, enhancing urban resilience to extreme weather events.
- **Agricultural Water Management and Irrigation Engineering:** Design and implement efficient irrigation systems, including surface, sprinkler, micro-irrigation technologies, to optimize water-use.
- **Environmental Impact Assessments (EIA/EIS):** Comprehensive EIA/EISs conducted to evaluate the potential impacts of water projects, ensuring sustainable development and regulatory adherence.
- **Regulatory Compliance & Policy Support:** Clients support in navigating water-related regulations, developing policies, and achieving certifications such as ISO and EMAS.
- **HORIZON RTD:** Through R&I project, we demonstrate high-tech commitment to sustainable water management and engineering excellence, supporting clients in addressing complex water challenges.



Environment: Waste, Ocean, Ecosystems, Contamination

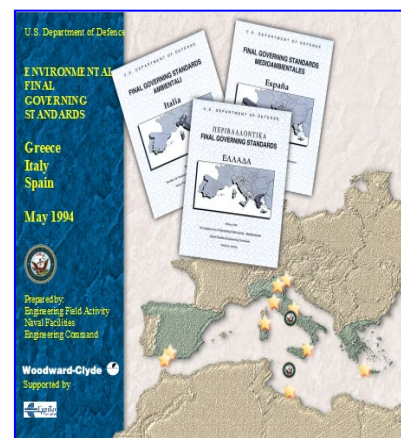
EPSILON is a pioneering international group specializing in environmental engineering, consulting, and research & innovation (R&I) since 1985. With a multidisciplinary team and a strong presence across Europe and world-wide, EPSILON delivers comprehensive solutions in environmental management, water and wastewater engineering, waste management, natural resource conservation, and environmental policy in several sectors:

- **Environmental Management & Sustainability:** Broad spectrum of environmental challenges, including air, soil, water, groundwater, and marine pollution. The company offers expertise in adaptation of climate change, sustainability assessments, environmental impact assessments (EIA), strategic environmental assessments (SEA), and the development of green technologies. EPSILON provides services in natural resource management, ecosystem services evaluation, carbon markets, emissions trading, and public health environmental policy. The firm supports corporate social responsibility (CSR) and environmental social governance (ESG) initiatives, utilizing life-cycle analyses (LCA) and decision support systems (DSS) to inform strategic planning.
- **Waste Management and Natural Resources:** In the realm of waste management, we offer engineering design services for solid waste technologies, sustainable consumption and production (SCP) strategies, and hazardous waste management. The company develops comprehensive waste management plans, including



collection, treatment, reuse, and landfill solutions, ensuring compliance with relevant laws and directives. EPSILON also focuses on the conservation and management of natural habitats, including NATURA 2000 sites, wetlands, and biodiversity hotspots, employing ecosystem modeling and risk assessments to support sustainable development.

- **Marine and Oceanic:** We offer specialized services in marine and oceanic environments, addressing challenges related to coastal and offshore ecosystems. We understand coastal wetlands delineations, sediment sampling, dredge material disposal analyses, and shoreline stabilization planning. By integrating scientific research with practical engineering solutions, EPSILON supports the sustainable development of marine resources and infrastructure.
- **Ecosystems and Biodiversity:** Extensive expertise in ecosystem conservation and biodiversity management. The company has developed and implemented management plans for protected areas, including NATURA 2000 sites, focusing on the preservation of habitats and species. EPSILON's services encompass ecosystem modeling, risk assessments, and the development of conservation strategies that align with EU directives and national regulations. Through these efforts, EPSILON contributes to the maintenance of ecological integrity and the promotion of sustainable land use practices.
- **Environmental Policy and Operational Tools:** We provide in-depth analyses of environmental policies, cost-benefit analyses, and economic assessments related to impacted environmental media. The company supports the development of environmental regulations, compliance plans, and public awareness campaigns. Operational tools offered by EPSILON include GIS and web-based GIS technologies, remote sensing facilities, mathematical modeling, and environmental monitoring systems. Our tools facilitate real-time data analysis, telemetrics, and the integration of enviro-legislation databases, enhancing decision-making processes for clients.
- **HORIZON RTD:** Through participation in 100+ Horizon Europe and nationally funded R&I projects, we solidified commitment to innovation & excellence in enviro- engineering, providing clients with sustainable and technologically advanced solutions across sectors.



Homeland Security & Natural Disasters

EPSILON has been at the forefront of Homeland Security (HLS) and natural disaster management since 1997, delivering integrated solutions that leverage geoinformatics, remote sensing, and advanced modeling to bolster civil protection and emergency response efforts.

- **Advanced Surveillance, Early Warning, C2/C4I Systems:** Comprehensive C2/C4I HLS technologies encompassing navigation, surveillance, mapping, and monitoring systems and C/C communications. We utilize platforms such as Unmanned Aerial Vehicles (UAVs), Unmanned Ground Vehicles (UGVs), and Unmanned Marine Vehicles (UMVs) to provide effective early-warning capabilities and enhanced situational awareness linked to C2/C4I systems. Models for Multi-Swarms have been used to optimize trajectories of unmanned vehicle for cooperative surveillance.
- **Risk Assessment and Critical Infrastructure Monitoring:** Development of national risk assessments and management plans, focusing on disaster recognition, prevention strategies, preparedness, and risk mapping. The company excels in patrolling and monitoring critical infrastructures and networks, including energy plants, industrial bases, health facilities, water treatment plants, IT systems, ports, airports, government facilities, and linear networks such as gas, oil, water, transport, and telecommunications.



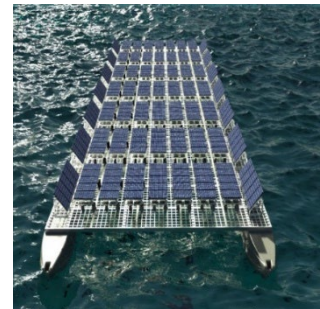
- **Natural Disaster Assessment and Modeling:** The organization conducts comprehensive assessments and mapping of natural disasters, including earthquakes, volcanoes, landslides, ground movements, forest fires, flash floods, extreme weather events, tsunamis, and industrial accidents. EPSILON employs mathematical modeling to assess natural phenomena and the performance of critical infrastructures, supporting effective emergency management through single and multi-risk analyses.
- **Wild-Fires-, Floods-, Earthquakes-, Heat-, Management & Impact Risks:** We offer for example turnkey systems for wild-fire management (preparedness/prevention, disaster-operations, impact risks) including automated fuel mapping, forestry sensor monitoring, fire alert systems, ignition estimation, and integrated management strategies that encompass civil evacuation planning. We develop field monitoring telematics systems that integrate UAV/UAS technologies with sensors and geoinformation technologies to effectively monitor enviro-risks of all types of natural disasters (more than 15 categories, from tsunami to Ebola).
- **HORIZON Research & Development in HLS:** EPSILON is actively engaged in research and development for HLS technologies, focusing on modeling, business continuity post-disasters, media and city-wellness (image) modeling, and advancements in UAV and unmanned vehicle technologies. The company develops geo-applications tailored for civil protection and HLS, enhancing the capabilities of emergency services and decision-makers.



Energy

EPSILON offers a comprehensive suite of energy-related engineering, consulting, and research services, addressing the evolving needs of the energy sector. The company's expertise spans renewable energy development, energy efficiency, smart infrastructure, and energy policy, providing clients with innovative solutions for a sustainable energy future. Key engagement:

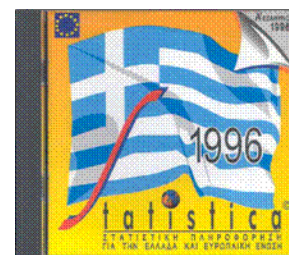
- **Renewable Energy Development:** Expertise in wind, solar, ocean, and other renewable energy projects, supporting clients in transitioning to sustainable energy sources, FPV (photo Horizon NTUA™)
- **Energy Efficiency and Conservation:** Implementation of strategies to reduce energy consumption and enhance efficiency across various systems and processes.
- **Smart Infrastructure and Grid:** Development of intelligent energy systems, including smart grids and advanced metering infrastructure, to optimize energy distribution and consumption.
- **Energy Storage and Integration:** Integration of energy storage solutions and GIS technologies to enhance grid reliability and accommodate renewable energy sources.
- **Fossil Fuel Optimization:** Services in exploration, production, and optimization of fossil fuel resources, ensuring efficient and responsible utilization.
- **Carbon Management and Emissions Reduction:** Development of strategies for carbon footprint reduction and compliance with environmental regulations.
- **Energy Transition and Decarbonization:** Support for clients in transitioning to low-carbon energy systems, aligning with global sustainability goals.
- **Risk Management and Resilience:** Assessment and mitigation of energy-related risks, enhancing system resilience against disruptions.
- **Infrastructure Planning and Development:** Comprehensive planning and development services for energy infrastructure projects, ensuring sustainability and efficiency.
- **Energy Market Analysis and Forecasting:** Provision of insights into energy markets, aiding clients in strategic decision-making and investment planning.
- **Policy and Regulatory Support:** Guidance on energy policies and regulations, assisting clients in navigating complex legal frameworks.
- **Community Engagement and Social Impact Assessment:** Evaluation of social impacts and facilitation of community engagement in energy projects, promoting inclusive development.
- **Research and Technological Development (RTD):** Collaboration with academic institutions, such as the National Technical University of Athens (NTUA), to advance energy technologies and methodologies.



Economics & Project Management

For its sector's expertise, EPSILON offers a suite of services in economics and project management, combining technical, administrative, and strategic expertise to support complex, multidisciplinary projects across sectors such as environment, infrastructure, aviation, energy, and digital innovation. Key qualifications:

- **Business Planning and Strategy:** Conduct statistics, in-depth analysis of market competition, financial positioning, funding requirements, marketing strategies, operational logistics, and compliance with governing legislation.
- **Market Research and Innovation:** Execution of strategic market research to inform innovation and renewal initiatives, applying advanced research and management methodologies.
- **Project Management:** Management of complex projects, overseeing economic, administrative, and technical aspects. Services include engineering project management, economic viability strategies, policy impact assessments, and legal compliance.
- **Feasibility & Impact Studies:** Comprehensive feasibility studies, assessing technical, economic, and operational viability, and evaluating the socio-economic impacts of development projects.
- **Regulatory Compliance & QA/QC Assurance:** Legal services, based on ISO and EMAS certification plans, and maintain a legal environmental database (EnviroLaw™) to ensure adherence to environmental laws and regulations, next to Quality Assurance and Quality Control ISO-based support
- **Training and Capacity Building:** The organization offers educational materials and training programs to enhance skills in project management, economic analysis, regulatory compliance.



Original Research & Innovation (R&D/RTD/R&I), Products

Since its establishment in 1985, EPSILON International Ltd has been a leader in research, development, and innovation (R&D&I), participating in over 100 European Commission-funded projects, including Framework Programmes FP3 through Horizon Europe. The company's extensive R&D&I portfolio encompasses diverse sectors such as maritime technology, environmental sustainability, geoinformatics, and smart infrastructure. Notable projects since 1991 in Europe (**bold** = EPSILON Coordinator) are:



[FLEETfor55](#) (2025-2027), [AGRARIAN](#) (2024-2027), [NEUROCLIMA](#) (2023-2026), [ECOSHIPYARD](#) (2023-2026), [TRACE](#) (2023-2025), [PANTHEON](#) (2022-2025), [MALTA INSPIRE](#) (2000-2023); [HS4U](#) (2022-2024) [TRANSFORMAR](#) (2021-2024), [OPTISHIP](#) (2022-2024) [BLEU-ISLES](#) (2021-2023) [ZeroParasitic](#) (2020-2023); **FUSION** (2018-2020), [Smart-Ship](#) (2019-2023), [HOLISHIP](#) (2016-2020), [SIM4NEXUS](#) (2016-2019), [AURORA](#) (2016-2019), [FLYSEC](#) (2015-2017), [giCASES](#) (2015-2017), [Hero20FF](#) (2014), [EU-GAS](#) (2013), [GEOSMARTCITY](#) (2013), [i-LOCATE](#) (2013), [C-Space](#) (2013), [GrekoRisks](#) (2012), [SUNSHINE](#) (2012-2014), [RAWFIE](#) (2015-2018), [smeSpire](#) (2012-2014), [eENVplus](#) (2012), [i-SCOPE](#) (2012), [MALTA-N2K](#) (2012), [MALTA-SEIS](#) (2012), [ArcFUEL](#) (2011-13), [Smart-Islands](#) (2011-13), [ArcFIRE](#) (2010-2013), [3D-Aerodromes](#) (2010-2012), [BRIDEIDE](#) (2009-2011), [EOMARK](#) (ESA, 2009-2011), [URS](#) (US Navy, 1994-2014), [Yahting123.com](#) (2008-2010), [YPExODE](#) (GR, 2009-2011), [SEIX-SOU](#) (GR, 2009-2011), [NATURE-SDI](#) (2009-2011), [MEDISOLAE-3D](#) (2008-2010), [ECONET/COHASt](#) (2007-2009), [MEDISOLAE](#) (2007-2009), [DIGI-GREECE](#) (GR, 2000-2008), [SCIER](#) (2006-2009), [AXIOS-VARDAR](#) (2008), [GALILEO-MARINE](#) (2006-2008), [DG-INFO-IST](#) (2004), [DG-ENV-LIFE](#) (2004), [DG-ENV](#) (2004), [DG-AID](#) (2004), [ESPRIT](#), [RACE](#), [TELEMATICS](#), [TELEMATIQUE](#), [DGI](#), [DGXI](#), [DGIII](#), [DGXII](#), [DGXIII](#), [DGXVI](#), other). He has led or participated in the following projects: [URBANRISKS](#) (2004-06), [EPSILON](#) (2003-06), [SESOIL](#) (2003), [EnviroStatistics](#) (2003), [ASIA_CITY](#) (2002-04), [WEB-City](#) (2000-02), [THE_CITY](#) (1999-02), [INFOCITY](#) (1998-00), [EDT](#) (RACE, 1996), [ISTAT](#) (Eurostat, 1996), [URBAN](#) (DGI/III, 1996), [COMMUTER](#) (1996), [FOMFIS](#) (DGXII, 1996), [ENVISYS](#) (DGXIII 1966), [MAPS:5000](#) (1996), [OSA-TESMA](#) (DGXIII, 1966), [ECOS-TACIS](#) (DGI, 1995), [EURIPIDES](#) (DGXIII, 1995), [GISWORKSHOP](#) (DGIII, 1995), [ENVIROCITY](#) (DGXIII, 1995), [ENGINE](#) (DGIII, 1995), [CEO-JRC](#) (JRC 1995), [LIFE-Sperxios](#) (DGXI, 1995), [TRAVELPLAN](#) (1995), [GEOCHARTA](#) (GR, 1994), [COPESTAT](#) (DGIII, 1994), [STATISTICA](#)



(TELEMATIQUE, 1994), **ENVIRON** (DGXIII, 1994), **MEDECO** (DGI, 1994), **METIER** (DGXIII, 1993), **BRITEUR** (DGXIII, 1993), **EGIS** (DGIII, 1993), **MED-NPS/AVICENNE** (DGI, 1993), **EUROPE 2000+** (DGXVI, 1993), **ENVIDUCATION** (DGXIII-IMPACT, 1993), **GEOPHONE** (DGXIII-IMPACT, 1993), **MEDSPA** (DGXI, 1993), **MEDORA** (DGXIII, 1993), **TYPORA** (DGXIII, 1993), **PREDICT-HEALTH** (DGXIII, 1992).

Theories & Commercial Models (s/w packages)

Years of expertise in understanding physical and biologic enviro systems, formulation, design, structuring of mathematic systems. Applications for all environmental media, AIR, WATER, MARINE, LAND, ECOSYSTEMS. 40+ years of experience in developing models (USEPA, EC, international bodies):

- USEPA modeling system <https://www.epa.gov/air-research/air-quality-modeling>
- USEPA Water modeling tools <https://www.epa.gov/waterdata/surface-water-quality-modeling-tools>
- USEPA ecosystems <https://www.epa.gov/ceam/surface-water-models-assess-exposures>
- DHI mathematical models (represented services in Greece by EPSILON International SA), <https://www.dhigroup.com/>
- Wallingford UK mathematical models (represented services in Greece by EPSILON International SA), <https://www.hrwallingford.com/>
- European Commission (FP3-to-H2020-to-Horizon Europe, LILE, ERASMUS, PRIMA, Interreg, etc) https://research-and-innovation.ec.europa.eu/index_en
- Examples of commercial models and platform developed
 - ~ **SESOIL** (1984/USEPA): Model for regional and river basin water resource balances <https://nepis.epa.gov/>
 - ~ **OUTFALL** (1985/UNEP/UNDP): Sea outfall Model
 - ~ **SEDIM** (USEPA, 1985): sedimentation flow modeling for rivers
 - ~ **ENVIRO** (USEPA, 1987): Environmental Mathematical modeling Pollutant fate modeling Handbook & Catalogue (s/w database) for 15+ categories of Enviro-modeling and all media (Bonazountas, M.; J. Fiksel, ADL, 1982-1985)
 - ~ **EPSILON-NUTSIII** (2000, FP6/EC/EUROSTAT): Mathematical Environmental Sustainability Model for the EC-Eurostat and the 25 EU Member State NISs at NUTSIII Level.
 - ~ **ArcFIRE™** (2014/YPEXODE.GR): Integrated Forest Fire Management Platform, www.arcfire.eu, www.seix-sou.gr
 - ~ **ArcFUEL™** (2014/LIFE+/EC): Forest Fuels Mapping Platform, www.arcfuel.eu
 - ~ **Smart-Islands™** (2014, FP6/EC): Islands Rendering Platform <http://www.smart-islands.eu/>
 - ~ **VesselsLife.com™** (2020, EMFF/EC): Life-Cycle Platform for the Shipping Industry, www.vesselslife.com
 - ~ **SIM4NEXUS-Space** (2020, EC): River-basin Nexus via space technologies, <https://sim4nexus-space.eu/>
 - ~ **AURORA-Copernicus** (2020): AURORA - Advanced Ultraviolet Radiation and Ozone Retrieval for Applications (Atmospheric Mathematical Model based on Sentinel Copernicus technology), <http://www.aurora-copernicus.eu/>
 - ~ **LCA** (2020-2030): Life Cycle S/w technology for shipyards and the maritime sector (in preparation under www.LCA.services), <https://ecoshipyard.eu/>



Countries worked (60+)

Albania (1994), Algeria, Armenia (2013), Australia, Austria, Belgium (1990+), Bolivia, Bosnia & Herzegovina, Brazil, Brunei, Bulgaria (1997+), Canada (1985), Caribbean (2022), Chad, Croatia (2013), Cyprus (1995+), Czech Republic (2000), Denmark (EEA 2006-2012), Egypt, Estonia, Ethiopia, Finland, France, N. Macedonia (2006+), Georgia, Germany (1969+), Greece (1990+), Hungary (1992), India, Ireland, Israel (2015+), Italy (2005+), Jordan, Kenya, Kosovo, Latvia, Lithuania, Luxembourg, Malta (2006+), Montenegro, Morocco, Nepal, Netherlands, New Zealand, Nigeria (2016+), Norway, Oman, Pakistan, Peru (1992), Philippines (2019), Poland (1996), Portugal (2010+), Qatar (2015), United Arab Emirates, Romania, Russia (1991+), Saudi Arabia (2016+), Serbia, Slovakia, Slovenia, Spain (1995+), Sweden, Switzerland, Tanzania, Tunisia, Turkey (1998+), U.K. (2000+), USA (1974-1990), Vietnam (2005).

International Organizations Experience (35+)

AfDB, ADB, EASA, EBRD, ECCE, EEA, EFI, EIB, EMSA, ESA, EUROPEAID, EC, EUROSTAT, FAA, FAO, FRONTEX, GIZ, Hellenic Institutions, IADB, JRC/EC, MALTA Institutions, MCST (MT), NATO, OECD, UN/UNEP/UNDP, USAID, USCORP, USDOD, USDoH, USDOT, USEPA, USNSF, USGS, USNOOA, IBRD/World Bank, ZIM/DE, WHO, WMO.

Publications (in attachment 800+)