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Hellenic Technology Clusters Initiative

Ελληνική Πρωτοβουλία Τεχνολογικών
Συνεργατικών Σχηματισμών



EBIAITE

Hellenic Association
of Space Industry

si-Cluster

Space Technologies and Applications Cluster

si-Cluster Members

ALMA



ANALOGIES



ARATOS



CONSTELEX



EPICOS



EPOS



INACCESS



IRIDA LABS



ISI HELLAS



MILTECH



NIKI



PLANETEK



PRISMA



SEMANTIX



SPACE HELLAS



SPOT INFOTERRA



THEON SENSORS



MFOL/NTUA



MicroLab/NTUA



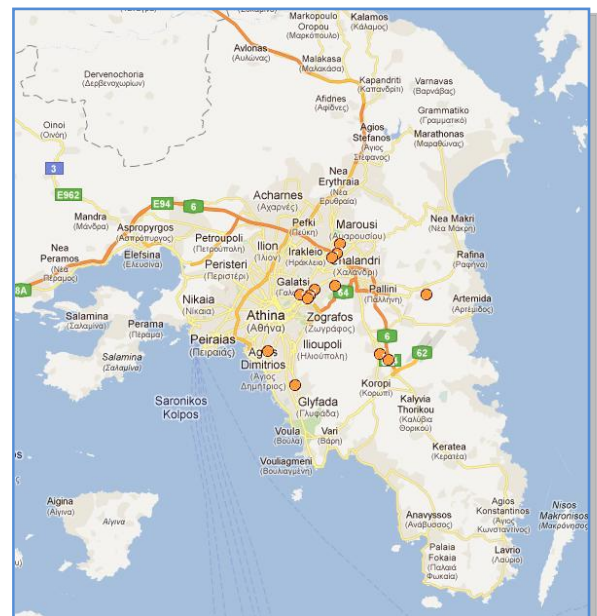
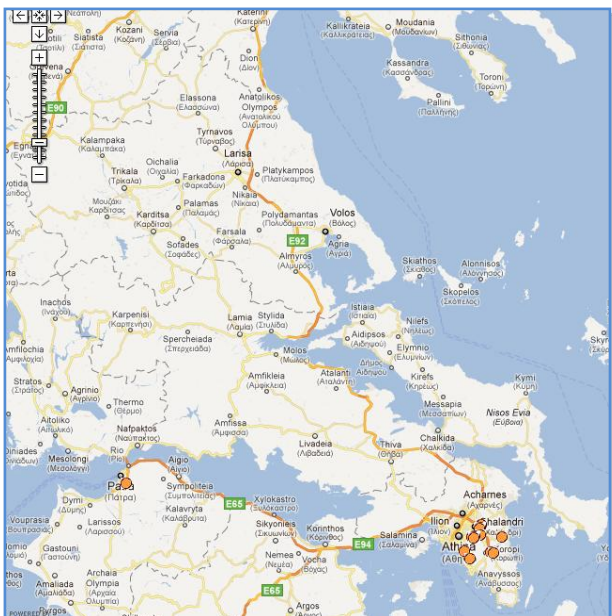
SPU/RC ATHENA



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Overview of the Space Technologies and Applications Cluster Members (si-Cluster)

Industry



Alma Technologies is among the first companies, worldwide to have launched a hardware IP core implementing the recently released JPEG2000 (ISO/IEC 15444-1) image compression standard. Alma's JPEG2k_E core has already been used successfully with satellite transmission systems. Alma has recently launched the only hardware IP cores for lossless digital image compression LJPEG & JPEGLS. JPEG family IP cores comprise another major success as it is the fastest and among the smallest JPEG solutions worldwide. During its six years of operation Alma has over than 50 unique customers and its export activity constitutes 95% of its turnover. More information at: www.alma-tech.com.



Analogies is a start-up semiconductor intellectual property (SIP) design company that provides high-speed wired and wireless connectivity cores for SoC solutions. A University of Patras spin-off, was founded in 2006 by researchers from the Electrical and Computer Engineering Dept., and semiconductor industry business entrepreneurs with long standing experience on semiconductor design. The company focuses on high speed front end PHYs with emphasis in communications (SERDES, VCOs, PLLs, RF functions), high speed interfaces (memory/bus PHY IFs), as well as on digital and mixed-signal implementations of signal processing algorithms for error correcting codes with emphasis given to Turbo/LDPC-like correcting and equalization schemes. Analogies current offerings include DDR2/3 memory interface cores, multi GHz wired IP cores, like the Superspeed USB3.0 PHY, wireless IP cores like its 60GHz PLL, as well as advanced ECC/FEC cores, like its megabit to multi-gigabit rate capable Turbo/LDPC IP cores, LTE Turbo codecs, and Turbo-LDPC engines for multiprotocol support. Headquartered in the [Patras Innovation Hub](#), in Patras, Greece, Analogies is a proud member of the Hellenic Semiconductor Industry Association (www.hellenic-sia.org). More information at: www.analogies.eu.



Aratos Technologies is one of the first European downstream value-added services company in the space sector. We carry out value added services in the areas of Environmental Protection, Land Use and Urban Planning, Disaster Management, Agricultural sector monitoring and Security using space and satellite technologies. The scientific resources, the experience of our experts and the know-how of the company satisfy all customer needs, ensuring excellent quality of service. Aratos Technologies is certified with ISO 9001:2000. The workflow of the company is divided into separate business units providing highest quality products and services, as well as, the ability for execution of parallel and demanding projects. The company has a Scientific Committee through which outstanding scientists and professors from around the world provide advice and analyses. More information at: www.aratos.gr.



Constelex Technology Enablers is a privately-held SME established in September 2009 by PhD holders with world-leading track record in the photonics R&D field. The company's mission is to offer advanced technology solutions enabled by optics, optoelectronics and photonics technologies. Constelex designs, manufactures and markets high power optical fiber amplifiers and lasers applicable to telecoms, sensing and defence applications, as well as low-noise, custom-made optical amplifier systems for R&D photonics labs. Our customers are companies and research organizations in Europe and Japan. Constelex also specializes in the design and modeling of micro/nano-photonic components and sub-systems and also offers a testing and system integration platform for transforming research prototypes into fully functional systems. The company's R&D department is actively participating in European-funded research projects related to next generation FTTH and high-capacity transport networks. More information at: www.constelex.eu.



Epicos is the leading international business to business platform for the high technology industries providing Information Services and Tools to identify and process Business Opportunities on Procurements, Marketing and Product development and International Industrial Cooperation. EPICOS is an open collaborative platform where professionals from the industry, government, universities, or any other related type of business can become an active member. EPICOS users are invited to upload their own company and product information, integrate their own service or just view content in the world's largest industrial community. More information at: www.epicos.com.



EPOS was founded in 2002 by a group of Greek electrical engineers with the goal of designing, manufacturing, developing and marketing electronic systems. The company has designed and manufactured digital, high performance surveillance and jamming systems for military communications (ESM / ECM). The R&D department of the company is active in the design of high performance, high complexity digital systems. More information at: www.epos.gr.



inAccess Networks, founded in 2000, is a leading provider of Multiplay Gateways and Multiservice Media Platforms for the converging Telco market. inAccess Networks current product lines include Multiplay Home Gateways and Controllers, Remote Site Controllers, platforms for Double-Play Media & Services, Multiplay Service Backends, as well as converged Value-Added Service Delivery Platforms. During its six years operation, inAccess has received the award of the fastest growing ICT company in Greece. It constantly expands its client list that includes European Telcos, as well as international telecom equipment manufacturers and integrators. The company is intensively investing in R&D and continues the expansion of its product portfolio with additional CPE and platform offerings in the areas of Triple-Play and Quad-Play Media & Services. More information at: www.inaccessnetworks.com.



IRIDA Labs is a promising high technology Greek company established in 2009 in Patras (see video presentation on IRIDA/YouTube). The main services target in the fields of Security Services and Embedded Systems for Computer Vision. IRIDA Labs has a full range of FPGA IP cores for image fusion and customized software for data fusion and ship detection. The company is a member of the Hellenic Association of Space Industry (HASI), the Hellenic Association of Semiconductor Industries (HSIA) and Corallia Clusters Initiative. During the last two years, we have achieved significant partnerships in working for large European organizations like ESA (European Space Agency) and EDA (European Defence Agency). More information at: www.iridalabs.gr.



Interoperability Systems International Hellas was established in Greece in 1991 with the goal of providing high quality integrated systems for the domestic and international defence markets. The company is engaged in the design, development, integration, installation, testing and follow on support of both Software and Hardware for: a) Tactical Command, Control, Communication and Intelligence Systems, b) NATO Standard Data Links, c) Multi-Link Network Planning Tools, d) National Data Links and Interoperability Solutions, e) Custom Data Links, f) Embedded Tactical Systems Trainers, g) Tactical Systems Simulators, h) Management Information Systems for defence Applications, i) Military Message Preparation and Handling Systems and j) Custom System Test Tools. More information at: www.isihellas.gr.



Miltech Hellas is a modern, dynamic company in the area of high technology electronic systems, telecommunication accessories, aircraft harnesses and other special purpose electronics applications, established in 1997 by a team of engineers with outstanding experience in the electronics sector. Miltech specializes in products and projects to satisfy the needs of the International Defence Industry in the areas of: Aerospace & Avionics Electronics; Tactical Communications; Thermal Imaging Products; Avionics Cables & Harnesses; Electronic Fuses; Modernization Programs. The main activities of Miltech cover: Consulting and Studying of high technology projects in-house using specialized personnel, with great experience in the areas of consulting and management; Design and development of technology edge electronic products and systems in-house or using specialized design houses; Production: Automatic PCB assembly discrete components and SMD technology, Aircraft Harnesses (Laser-marking, Overbraiding, Testing) Soldering, using robotic SMD assembly line, wave jet, no-clean technology, Final integration of electro –mechanical and electro-optical products; Environmental testing according to International standards and conformance testing to customer or special product requirements. More information at: www.miltech.gr.



NIKI was established in 1994 and is active during the last decade in the fields of Digital Engineering providing knowledge intensive services mostly in the European Automotive industry, as well as developing new technologies in several fields of industrial research in cooperation with research institutes in Greece and abroad. The services and products offered from NIKI are classified in the Integrated Engineering Services area, Engineering and Information Technology fields: Advanced Industrial Design: Computer Aided Design, Digital Mock-Up, Virtual Prototyping, Micromechatronics and Microrobotics; Computational Simulation: Computer Aided Engineering–Cax, pre/post processing, aerothermodynamics, thermal analysis, advanced FEM modeling, Multi Body simulations and kinematics. Static/dynamic simulations; Development of wide range Industrial data and knowledge management systems for automotive, health and simulation; Advanced custom computational simulation software. During the last years, in the frame of the Greek ESA Task Force, NIKI was awarded projects “Roadscanner: Feasibility of a GNSS-Probe for Creating Digital Maps of High Accuracy and High Integrity” and “Roadscanner II: Development of a GNSS-Probe for Creating Digital Maps of High Accuracy and High Integrity”, under the 1st

and 2nd Call for Outline for Ideas. Furthermore, NIKI has been selected as an ESA Qualified Partner (QPA) under the Competitive Frame Contracts for "Ground Software Related Activities (2010-2014)" for the Domain of "Web-Based Applications, Man-Machine Interface, Data Management and Business Information Framework". NIKI is a founding member of the Hellenic Association of Space Industry. More information at: www.nikitec.gr.



Planetek Hellas is a company of Planetek Italia Group. Since 1994 designs and develops integrated geographical data management systems. The company is active in the development of information solutions for storage, elaboration and distribution of cartographic databases and satellite remotely sensed images. In order to better satisfy market needs, Planetek Hellas completes its offer by its involvement in software development and resale and in consulting services and training. More Information at: www.planetek.gr.



Prisma Electronics SA was established in 1991 in Alexandroupolis, Greece. The Company has modern manufacturing facilities equipped with peak technology equipment and highly trained and experienced personnel, who handle complex electronics assembly and functional tests in electronic devices. Its R&D Sector is heavily involved in the development of innovative solutions, through national and European research projects. In this frame, the Company has developed technological solutions in smart sensors wireless networks (PrismaSense) and in digital interactive tour guide (Xenagos). Prisma Electronics maintains strategic partnerships with Microsoft (Certified Partner), HP (Preferred Partner), CISCO (SMB Select) and Oracle (Partner Network). Since 2004 Prisma Electronics established successful cooperation with ESA and CERN, participating in R&D efforts and supporting electronics manufacturing small and medium size productions. More information at: www.prisma.gr.



Semantix was founded in 2001 and has since grown to develop products and software for the Space, Defense and Telecommunications industries. With regard to space, Semantix has unique expertise in complex code generation for on-board software and has developed and owns the IPR for the only space-certifiable ASN.1 compiler worldwide. Over the last 5 years Semantix, despite its size, has managed to become an integral part in an elite team of space software companies that have built and maintain the ESA TASTE tools (<http://www.semantix.gr/assert>). The main value proposition the TASTE tool-chain brings to the space industry is: increased reliability through model-driven code generation and formal methods. Semantix has delivered space-related software to ESA, ASTRIUM and SPACEBEL. Semantix also develops solutions and software for GSM operators where it has delivered to organizations such as BELL, VODAFONE, ORACLE, TELEFONICA and many others in over 20 countries. More information at: www.semantix.gr.



Space Hellas is a leading system integrator and value-added service, application and solution provider in the areas of ICT and Security for the enterprise, government and defence sectors, certified according to ISO 9001:2008 and ISO/IEC 27001:2005 standards for its quality and information security management systems respectively. The primary activities of Space Hellas include: Design and implementation of wired and wireless communication networks; Design and implementation of IT solutions and data storage systems; Development and provision of IT and physical security solutions; Provision of IP telephony and audio/video conferencing solutions; Development and provision of telematics applications; Implementation of specialized solutions for telecom providers; Infrastructure solutions and services; Provision of consultancy services and state-of-the-art technical support; Provision of training and know-how transfer services. Additionally, Space Hellas is a provider of Integrated Telecommunication Services as well as global and domestic interconnection services to multinational and national enterprises, and to private and government organizations. Our customer base includes some of the largest private sector companies, banks, industries, chains of retail stores, telecommunications providers, ministries and other public sector organizations in Greece, as well as the National Armed Forces. More information at: www.space.gr.



Spot Infoterra Hellas distributes the full range of Astrium GEO-Information Services products and services, including data provided by the Spot and TerraSAR-X Earth observation satellites. Spot Infoterra Hellas offers advanced solutions that expand in the whole range of Geoinformation, serving various sectors such as environmental and physical surface management, telecommunication, monitoring and management of utility networks, border control, national and regional planning, maritime monitoring, agriculture, defence and even management of natural resources exploitation (oil, natural gas, etc). It develops additional services as well as part of the GMES initiative with a special focus on natural disasters. Its mission is to provide products & services to enable better management of the development, environment & security of our ever changing world. More information at: www.spotinfoterra.gr.



Theon Sensors is a privately owned Greek company that was incorporated in 1997 and is located in Athens. The scope of work is to design, develop and manufacture Electro-Optical Systems and MEMS based modules. THEON has the capability and the proven experience to develop and fabricate advanced, cus-

tomized sensing modules for Pressure, Acceleration and Flow applications. All development steps including full custom design of MEMS sensors, integrated electronics and packaging solutions are implemented in house while the fabrication of the silicon dies is outsourced to European foundries. Micro-assembly and integration of the modules are done inside the clean rooms of the privately-owned facilities, supported by highly sophisticated equipment. Full product characterization from wafer level up to module level is also implemented inside THEON facilities. THEON has acquired unique experience the last few years, implementing different ESA activities and undertaking contracts with Prime European Contractors towards the development of Space Qualified Hardware in the area of MEMS sensors and Application Specific Integrated Circuits (ASICs). The developed MEMS components are designed based on European processes; therefore THEON will produce a family of MEMS modules without ITAR restrictions, a key aspect for ESA activities. More information at: www.theon.com.

Academic & Research Community



Microprocessors and Digital Systems Laboratory (MicroLab) - National Technical University of Athens.

The Microprocessors and Digital Systems Laboratory (MicroLab) carries out research and educational activities on designing and implementing digital and embedded/microprocessor systems. The MicroLab is organised in three groups, the Embedded/Microprocessor Design Group, the VLSI Design Group and the Design Automation Group. It is mainly involved in the implementation of digital systems, from system level up to chip level, using the most advanced and modern technologies and methodologies available, ranging from microprocessors and microcontrollers, embedded systems development boards, signal processors, special purpose ICs and FPGAs, to the actual design of VLSI Application Specific ICs (ASICs). The basic research activities of MicroLab target embedded applications for multimedia applications, wireless/wired network applications, data acquisition, telecommunications, data encryption and compression, medical applications and consumer electronics. More information at: www.microlab.ntua.gr.



Microwave & Fiber Optics Lab (MFOL) – National Technical University of Athens. The Microwave and Fiber Optics Laboratory (MFOL) has been established in 1985 and has been active in a large number of European (RACE, ESPRIT, ACTS, IST) projects as well as in national projects in related areas of microwave, fibre optics and millimetre wave systems and technologies as well as applications relevant to telecommunications, sensor systems, biomedical engineering and wireless technologies. The MFOL has been certified according to ISO 9001 since 2000. MFOL in Parallel with its research and Development Activities supports an extensive Education Programme of Coursework in Engineering Diploma Studies, Master and Ph.D. Thesis. More information at: mfol.ece.ntua.gr.



The Space Programmes Unit (SPU) of the Research and Innovation Center Athena has as principal objective to foster participation of Greece in all aspects of the country's membership in the European Space Agency (ESA) and assist the country's competitiveness by advancing the use of leading-edge technologies in space engineering and science in the national, European and international domains. The principal goal of SPU is to marshal the high technology, intellectual, entrepreneurial, and institutional resources available within Greece in pursuit of programs and projects relating to space activities that have the potential of high payoff in the technical, defence, economic, and commercial arenas. More information at: www.athena-spu.gr.

Organisations for Collaboration



The Hellenic Association of Space Industry (HASI) was established in 2008 as a representative organization, acting as an intermediary and interface with the public administration and national and international organizations in all matters relating to the space industry, with the goal to extend and strengthen cooperation among companies, universities and state research institutes in R&D activities towards developing new technologies and products for use in space. The members of the association represent the majority of the country's R&D capacity in the field of space technologies and applications, comprising of more than 1000 highly skilled professionals with high scientific training. More information at: www.hellenic-asi.org.



Corallia Clusters Initiative (Corallia) was established in 2006, with the scope to design and manage programmes that will implement the national policy on Innovation and Competitiveness, creating a favourable environment for enhancing entrepreneurship and innovation and fostering emerging technologies in exports-oriented market segments that can yield world-class results. Upon its conception and launch, Corallia became the first systematic national cluster initiative in Greece, aiming at boosting competitiveness, entrepreneurship and innovation, in knowledge-intensive, exports-oriented and high-technology fields where Greece has the capacity to build a sustainable innovation ecosystem and can attain a worldwide competitive advantage. More information at: www.corallia.org.

Corallia

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