

ITALY-CZECH REPUBLIC SPACE INDUSTRY WORKSHOP

Rome, April 17, 2013

ASI Headquarters

Via del Politecnico, snc

In collaboration with









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Italy – Companies Profiles



ALMA SISTEMI Sas Company Name: Number of company's Alma Sistemi Sas **SME** employees (2012): **Turnover (in Millions of** Alessio Di Iorio **Contact person:** Euros) E-mail: Member of a Trade adi@alma-**AIPAS** sistemi.com **Association/Organization** Tel. office +393356317013 Mobile: +39 0774 Website: 016871

Main Areas of Activities:

ALMA Sistemi Sas di Di Iorio Alessio & C is an Italian SME established in 2005 providing high level consultancy in the space and defence markets. ALMA provides services in Business Development, Project and Proposal Management, System and Software Engineering with specific regard to image processing.

The activities of ALMA spans from international RTD projects managed by research organizations to industrial projects covering: added value services in the space market, Earth Observation and Navigation Applications and Check—out equipment for satellite and payloads. Activities are carried out by Alessio Di Iorio, Managing Director and major stakeholder with the support of network of professionals engaged time by time on a project basis.

From 2005 ALMA operates in high-value, high technology areas focusing on helping clients to exploit new technologies and management styles. Its proven expertise has been gained from performing a broad range of projects in the: Aerospace, Engineering, Research and IT sectors. These include: helping research organisations and industries to identify potential opportunities, make project proposal, development plan and implement new products and services.

ALMA has contributed on behalf of its international clients to a number of key space projects funded by the European Commission, the European and Italian Space Agencies with specific regard to remote sensing applied to cultural heritage.

| ALMA | SPACE Srl | | |
|----------|-----------------------|--------------------------|---------------|
| Company | Alma Space Srl | Number of company's | SME |
| Name: | | employees (2012): | |
| Contact | Damiano Accurso | Turnover (in Millions of | |
| person: | | Euros) | |
| E-mail: | Damiano.Accurso@almas | Member of a Trade | AIPAS |
| | pace.com | Association/Organization | |
| Mobile: | | Tel. office: | Tel: +39 0543 |
| Website: | www.almaspace.com | | 25280 |

Main Areas of Activities:

ALMASpace is a privately owned, aerospace company based in Forlì, Italy, dedicated to the design, manufacture and operation of low-cost, high-quality space systems. The company was recently established as a spin-off of the Microsatellites and Space Microsystems Lab of the University of Bologna, to bring to the market the results of its research activity in the field of small space systems engineering.

ALMASpace products and activities:

- Microsatellite missions and subsystems
- Planetary spacecraft radio tracking techniques
- Qualification campaign and documentation
- Ground Support Equipment
- Mobile and automated Ground Control Stations
- Mission analysis
- ECSS standards tailoring
- Technical computing and engineering services
- Unmanned vehicles GNC systems.

ALMASpace is composed by three main business units:

Aerospace Systems and Technologies Radio-science/Tracking Techniques Consulting and Services

| ALTRAN IT | | | |
|-----------------|-----------------------|--|-----------|
| Company Name: | ALTRAN ITALIA | Number of company's employees (2012): | 2,100 |
| Contact person: | Marco MARIGLIANO | Turnover (in Millions of Euros) | 160 |
| E-mail: | info.italy@altran.com | Member of a Trade Association/Organization | ASAS |
| Mobile: | | Tel. office: | +39 06 45 |
| Website: | www.altran.it | | 224 200 |

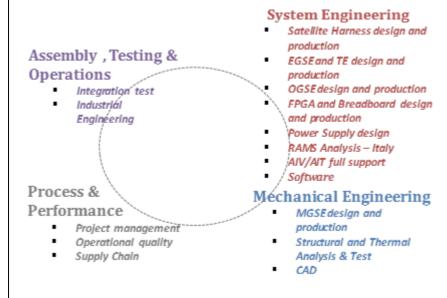
Main Areas of Activities

Altran Italia, part of Altran Group, was born in 1996 and offers today with over 2,100 employees advanced engineering and innovation consultancy, with offices in Genoa, Turin, Milan, Trieste, Bologna, Pisa, Florence, Rome, Naples. In 2011 Altran Italia turnover was about 160 million euro.

Altran supports Space Industry with focus on:

- cost reduction and on-time-delivery focusing on consulting services and turn key projects with its offer portfolio
- creation of a trustful technological partnership approach with a dual objective: not only guiding and maximising their R&D initiatives, but also helping them transfer their expertise to new sectors and applications.

Altran supports the Space sector's leading European Players in every phase of the development cycle, from project management to the engineering of complex systems in Navigation, Earth Observation, Exploration, Launchers and manned systems, up to AIT and commissioning phases with its Offers Portfolio as follows:



| ANTE | CH Spa | | |
|----------|-----------------------|--------------------------|---------------|
| Company | ANTECH Spa | Number of company's | SME |
| Name: | | employees (2012): | |
| Contact | Alessandra Caltabiano | Turnover (in Millions of | |
| person: | | Euros) | |
| E-mail: | info@antech.it | Member of a Trade | ASAS |
| | alecalt@gmail.com | Association/Organization | |
| Mobile: | +39 349 5348034 | Tel. office: | +39 095 74 17 |
| Website: | www.antech.it | | 400 |

Main Areas of Activities

Antech S.p.A designs, manufactures and integrates turn-key satellite telecommunications systems and RF equipment. The company, founded in 1989, is a manufacturer and systems integrator with a reference market of satellite operators and their end users, broadcasters, Defense and space agencies. Antech products range includes Ku, Ka, K, C, X, L and S band systems, fixed and mobile antennas, customized solutions design and refurbishment of existing systems. Our team of qualified engineers with a wide experience in the satellite field is constantly involved in an extensive R&D activity.

| AVIO SpA | | | | |
|----------|-----------------------------|--------------------------|---------|--|
| Company | AVIO SpA | Number of company's | large | |
| Name: | | employees (2012): | company | |
| Contact | Maurizio Mura | Turnover (in Millions of | | |
| person: | | Euros) | | |
| E-mail: | maurizio.mura@aviogroup.com | Member of a Trade | AIAD | |
| | | Association/Organization | | |
| Mobile: | | Tel. office: | +39 011 | |
| Website: | www. aviogroup.com | | 0082111 | |

Avio is an international group, leader in the aerospace sector, located in Turin (Italy). Founded in 1908, it is present on 4 continents with commercial offices and 9 industrial production sites. It has 5,200 employees, of which about 4,500 work in Italy. Avio is active in the field of technological R&D through a network of laboratories located on Italian University campuses, and collaborates with 24 Italian and international universities and research centers.

Main Areas of Activities:

AIRBORNE PLATFORMS PROPULSION

turbine aeroengines

NAVAL PLATFORMS PROPULSION

ships and submarine propulsion plants

SPACECRAFT PROPULSION

DESIGNING

ENGINES

MAINTENANCE, TRANSFORMATION AND OVERHAUL ENGINES

for airborne

for naval platforms

NAVIGATION AIDS

FOR NAVAL PLATFORMS

SURFACE AND SPECIAL TREATMENTS

HEAT TREATMENTS

WEAPONS, WEAPON SYSTEMS AND AMMUNITION

WEAPONS weapon propulsion

Other details

http://www.aiad.it/en/scheda azienda.wp?contentId=SCH937

CECOM Srl Number of company's **Company Name: CECOM Srl SME** employees (2012): **Turnover (in Millions of Contact person:** Andrea CERACCHI Euros) E-mail: Member of a Trade AIAD cecom@cecomweb.com **Association/Organization** Tel. office: Mobile: +39 0774 Website: 355777 www.cecomweb.com

Main Areas of Activities:

CECOM is specialized in design and manufacturing of extremely high precision systems and components.

Machining is CECOM core business. CECOM equipment includes the most up-to-date machinery (NC milling machines 3,4 and 5 axis, NC lathe and wire-eroding machines) for any kind of manufacturing, TIG welding, assembling and testing (two DEA NC machines for dimensional check are available). In our clean room we can perform assembly and leak detection. Our UHV equipment allows us to perform bakeout, RGA test and desorption rate measurements.

In partnership we can manage other technologies – such as vacuum brazing, vacuum firing, EB welding, presswork, galvanic treatments, laser cutting, plasma cutting, sputtering, and the development of electrical systems – which are aimed at the commissioning of turnkey units.

Our philosophy is understand and make the customer need real.

Other details

http://www.aiad.it/en/scheda azienda.wp?contentId=SCH1015

| CGS Spa | | | |
|-----------------|--|--|---|
| Company Name: | CGS Spa - Compagnia Generale dello Spazio | Number of company's employees (2012): | 189 |
| Contact person: | | Turnover (in Millions of Euros) | 45,2 |
| E-mail: | info@cgspace.it | Member of a Trade Association/Organization | AFCEA, ANTARES, AIPAS, ASD/Eurospace, Lombardy Aerospace Cluster, IAF, NEREUS |
| Mobile: | | Tel. office: | +39 02380481 |
| Website: | www.cgspace.it | | |

Main Areas of Activities

CGS is a leading company in Italy for the design, development and integration of Space Systems and has been operating in this field for over 30 years. Company headquarter is in Milan, its centres of excellence being distributed throughout Italy in Benevento, Rivalta Scrivia (AL), Bologna and Rome. CGS is part of a cluster of European firms owned by OHB AG.

Main Specializations: Satellites: turn-key systems for scientific and application missions; Scientific payloads: for experiments in microgravity conditions, deep space and planetary exploration; Ground segment: development, implementation and maintenance of facilities for satellite and launchers; Earth Observation: systems and services for the exploitation of remote sensing data for environmental monitoring, natural hazards and security and air quality; Commercial applications of space technologies: integrated security, telemedicine, fleet management, traffic monitoring, civil protection, surveillance; Planetary Exploration: exploration mission and system studies to precision landing systems, surface mobility vehicles and insitu science.

CGS Spa



Other capabilities: Mission analysis, AIT activities ACS, OBDH, TM/TC, power subsystems for satellites; Instrumentation and processors for scientific and application payloads, with application software; Instruments for microgravity experiments; Software for space systems and applications; On-board automation; Attitude control and modelling; Thermal and structural analysis, design, thermal control units; Power supply; Guidance navigation & control systems; Time & frequency distribution systems; Ground Stations; Ground support equipment with application software, ranging from check-out to test equipment; SSA; On-board receiver for satellite AIS.

Consorzio NITEL Number of company's 5 **Company Name:** Consorzio NITEL employees (2012): Michele Luglio **Turnover (in Millions of** 0,4 **Contact person:** Euros) E-mail: Member of a Trade luglio@uniroma2.it **ASAS Association/Organization** Tel. office: Mobile: +39 3284590589 +390672597449 Website: www.nitel.it

NITEL is a consortium consisting of 20 prestigious Italian universities and more than 500 researchers. As well as being a proponent of new scientific ideas, **NITEL** also carries out high level activities in the divulgation of information and instruction. The fundamental areas of **NITEL** activities are: communication, education, scientific research (actually focused on Infrastructures, IT, Transport, Telecommunications, Electronics, Energy, Logistics, Safety, Security, and Health).

Main Areas of Activities:

Satellite telecommunications, Integrated space systems, ICT solutions for transportation (railway), data security, High education and training.

ENGINEERING INGEGNERIA INFORMATICA SpA



| Company Name: | Engineering | Number of company's | large |
|-----------------|----------------------|--------------------------|---------|
| | Ingegneria | employees (2012): | company |
| | Informatica SpA | | |
| Contact person: | Maura Lazzara | Turnover (in Millions of | |
| | | Euros) | |
| E-mail: | maura.lazzara@eng.it | Member of a Trade | AIAD |
| | - | Association/Organization | |
| Mobile: | | Tel. office: | +39 06 |
| Website: | www.eng.it | | 492011 |

Main Areas of Activities:

Within the Defence and Aerospace segment, which is part of the Public Administration division, Engineering has in-depth competence on surveillance systems, command and control systems, intelligence systems, command support systems, datafusion, data protection systems (VPN, PKI), simulation and training systems, mission planning, datalink, management systems for the security of the mercantile fleet, operational management systems.

For futher details:

http://www.aiad.it/en/scheda azienda.wp?contentId=SCH1031

FINMECCANICA Company Name: Number of company's Finmeccanica 75,000 employees (2012): Francesco Santavenere **Turnover (in Millions of Contact person:** 18,695 Euros) E-mail: Member of a Trade francesco.santavenere@ AIAD finmeccanica.com **Association/Organization** Tel. office: Mobile: +39 06 Website: www.finmeccanica.it 324731

Main Areas of Activities:

Finmeccanica is the main Italian industrial group operating globally in the aerospace, defence and security sectors, and is one of the world's leading groups in the fields of helicopters, defence and security electronics. It is also the European leader for satellite and space services as well as having considerable know-how and production capacity in the energy and transport fields.

Headquartered in Italy and with a vast industrial base in the UK as well as important production facilities in the rest of Europe and in the USA, Finmeccanica has a workforce of more than 75,000 people, and a revenues volume of euro mil. 18,695. Technology and innovation are the keystones of Finmeccanica's success and competitive edge. In 2010 the Group invested 2,030 million euros a year in R&D activities, making Finmeccanica the leading Italian investor in hi-tech sectors. As far as the core business is concerned, investments amount to 11% of turnover - a percentage that is higher than some of its main competitors. A large part of R&D investment is channelled into dual technology projects, leading to significant advantages in civil applications of considerable strategic importance. To maintain its leadership in hi-tech sectors, Finmeccanica focuses on the value of its human resources, and the laboratories of its subsidiaries are staffed by around 5.000 highly specialized researchers are concerned with research and development.

Company Name: GELCO SpA Number of company's employees (2012): Contact person: Gaia Mancini Turnover (in Millions of Euros) E-mail: Member of a Trade Association/Organization

Tel. office:

Main Areas of Activities:

Mobile: Website:

GELCO is a customer-oriented company operating in the professional electronics sector, both nationally and internationally.

www.gelcospa.it

GELCO is specialised in offering designing, engineering, production and testing services at the highest levels of experience and technology, in the military as well as professional sectors.

The company operates in various fields of electronics, from the military sector (avionic, marine, land) to the professional sector (electro-medical, automotive, communications, aerospace).

GM SPAZIO Srl Number of company's **Company Name: GM Spazio Srl** 6 employees (2012): **Turnover (in Millions of** Filippo Gemma 0,700 euro **Contact person:** Euros) E-mail: sales@gmspazio.com Member of a Trade **ASAS Association/Organization** Tel. office: +39 Mobile: +39 3355702339 Website: 0645433891 www.gmpazio.net

Main areas of activities and possible interests

www.gmspazio.com

GMSPAZIO started in 2005 to answer the strong demand coming from ICT and Aerospace Markets, for solutions dedicated to 4Ds (Space + Time) synthetic scenarios management.

Company operations are dedicated to help customers in complex simulation scenarios management, and Satellite Remote Sensing sectors, offering Products, Services, Training and know-how to develop customized Geographic Information Systems and customers' tailored applications and services.

Looking at Products, GMSPAZIO is the:

- Unique Italian distributor of Analytical Graphics Inc. STK software solutions for Modeling & Simulation: STK, NavTK, ODTK, STK Engine, SimMetrics
- Italian Distributor of Orbit Logic Inc. software tools for Collection Planning: CPS, CPM, CPAW, UAV Planner
- Italian Distributor of REMCOM Inc. software tools for Electromagnetic Simulation: XFdtd, Wireless Insite ®, XGtd, VariPose, Rotman Lens Designer
- Specialist Dealer in Italy on behalf of microdrone Gmbh (UAV systems)
- Distributor of Very High Resolution Satellite Remote Sensing Images
- Supplier of Monitoring & Control Systems for Aerospace, Defense & Homeland Security

GM SPAZIO Srl



Looking at Services, GMSPAZIO offers:

- Support to Design, Develop, Test and Deploy customized ICT Applications for land, sea, air and space resources management
- Satellite Remote Sensing images high quality level processing, including: Georeferencing, Orthorectification and DTM/DEM extraction from VHR Remote Sensing Satellite Images.
- Value Added Services for Change Detection worldwide using VHR Remote Sensing Satellite Images. (More than 50.000 km2 processed and published on the web)
- UAV Monitoring and surveillance services
- Training on ICT and Remote Sensing and Synthetic Simulation subjects.

| HUGHES EUROPE | | | | |
|---------------|----------------------------|--------------------------|-----------|--|
| Company | Hughes Europe | Number of company's | Hughes | |
| Name: | | employees (2012): | worldwide | |
| | | | is above | |
| | | | 2,500 | |
| Contact | Marco Mirante | Turnover (in Millions of | 1,159M\$ | |
| person: | | Euros) | | |
| E-mail: | m.mirante@hugheseurope.com | Member of a Trade | ASAS | |
| | | Association/Organization | | |
| Mobile: | +39 3478071858 | Tel. office: | +39 06 | |
| Website: | www.hughes.com | | 844 0611 | |
| | www.hugheseurope.com | | | |

Main areas of activities and possible interests: Hughes is the world's leading provider of satellite broadband for home and office, delivering innovative network technologies, managed services, and solutions for enterprises and governments globally. HughesNet® is the #1 high-speed satellite Internet service in the marketplace, with over 659,000 consumer and small business subscribers in North America, and offerings to suit every budget. To date, Hughes has manufactured and shipped more than 3.3 million VSAT terminals to customers in over 100 countries, and has consistently maintained a global market share of over 50 percent.

Hughes owns and operates service businesses throughout the United States, Europe, India, and Brazil delivering continent-wide broadband satellite connectivity along with an ever growing range of fully managed solutions and applications to major enterprise customers in virtually every vertical sector. Its technology footprint covers the globe, exceeding 1 million broadband sites operating on more than 20 satellites, including the company's award winning, Ka-band SPACEWAY® 3 satellite in North America, the world's first with onboard switching and routing.

Hughes supplies a growing family of authorized service providers, government organizations, and businesses with advanced broadband systems and terminals including satellite Network Operations Centers (NOCs) and gateways; two-way broadband satellite routers; mobile satellite handhelds and high-speed IP data terminals; and broadband wireless systems.

Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned

| INTECS Spa | | | |
|-----------------|---------------------------|--|-----------|
| Company Name: | INTECS Spa | Number of company's employees (2012): | 650 |
| Contact person: | Cesare Dionisio | Turnover (in Millions of Euros) | 35 |
| E-mail: | cesare.dionisio@intecs.it | Member of a Trade Association/Organization | AIPAS |
| Mobile: | +39 3465007172 | Tel. office: | +39 06 20 |
| Website: | www.intecs.it | | 39 28 00 |

Main Areas of Activities:

intecs, founded in 1974, is an Italian private Company at the forefront in the design and implementation of ICT systems for the Defense, Space, Telecommunication and Transport markets.

intecs operates designing and developing software applications, tools and components for complex electronic systems in cooperation with the major European and Italian Organizations, Universities and Research Centers.

Intecs, since its foundation, has been operating in the software market, where safety, reliability, innovation and quality were the key ingredients for success.

The core competencies include:

- Dependable and safety-critical systems
- Software Defined Radio
- Operating System, middleware and communication software
- Earth Observation systems and Geographical Information Systems
- Satellite navigation applications and systems
- Software Engineering and Software Quality
- Human Computer Interfaces
- Supervision and Command & Control systems
- digital HW & equipment design
- telecommunication equipment design and manufacturing
- telecommunication optical networks and system design and mftg

SPACE specific capabilities

- On board
- On board Communication (1553, Spacewire)
- On Board Devices drivers-Boot & Download, O.S. & drivers (BSP)
- Central Data Management
- Control sub-systems-Solid State Mass Memories

INTECS Spa



- Experiments control (ISS)
- Payloads handling/data acquisition
- Mission & System Design
- Payload& Equipment Design Based on SDR approach (Navigation, TT&C, Radar)
- On Ground
- Electronic Ground Support Equipment subsystems (EGSE)
- Data evaluation /dissemination of payload data (WEB portal)
- Space Systems AIT/AIV & Launch support
- User Services and Spatial Data Infrastructures
- Data warehouse for mission support
- Data Dissemination Services
- OGC compliant GIS services and Clients
- user terminals
- Virtualization

Products

gLab: Sw tool for signal analysis of real or simulated GNSS data (GPS;GALILEO; EGNOS) in use from ESA.

MicrOsek: hard real time and networked operating system compliant with Osek/Vdx DLT-Analyzer: SW tool for collecting and analyzing AUTOSAR "log&trace".

HRT-UML is a toolset providing comprehensive solution to the modeling of hard real time and dependable systems and their early verification.

SIRIO: small radar for obstacle detection on railways.

Giano: scatterometer based on GNSS signal for water/land status measurement

STAR: TT&C equipment for small satellite communication at low and high speed.

NADIA: system for blind impaired people pedestrian navigation.

De-Jammer: equipment to control GMS correct operation and interference,

| ITALCONSUL Srl | | | |
|-----------------|-------------------------------|--|------------|
| Company Name: | ITALCONSUL Srl | Number of company's employees (2012): | 5 |
| Contact person: | Roberto Paggi Manlio Paggi | Turnover (in Millions of Euros) | 0,5 |
| E-mail: | italconsul@italconsul.it | Member of a Trade Association/Organization | AIPAS |
| Mobile: | | Tel. office: | +39 06 679 |
| Website: | www.italconsul.it | | 18 18 |

Main Areas of Activities:

Founded in 1996, as Dependability, Risk and Safety Assessment Company. Exercised its skill in Energy, Aerospace, Transport and Defense Fields. Possesses some patents concerning Electrical Machinery of new conception oriented towards applications in Smart Grids. ItalConsul developed a software tool of new conception, named "Relysoft" for Reliability calculation of any physical processes, including mechanical structures design. Relysoft is a certified tool.

The main Customers of ItalConsul are the following: RHEINMETALL, MBDA, ALSTOM (Italy and France), RAIL-TECH-INTERNATIONAL, KISTLER, ALENIA-ARERMACCHI, ITALFERR, ENEL, SOGIN.

ITSLAB Srl Number of company's Company **ITSLAB Srl** Name: employees (2012): **Turnover (in Millions of Contact** Nazzareno Marchese Lucio Bardelli Euros) person: E-mail: nazzareno.marchese@itslab.it Member of a Trade ASAS lucio.bardelli@itslab.it **Association/Organization** Tel. office: Mobile: +39 392 0388151 Website: ww.itslab.it

Main Areas of Activities

ITSLAB is a "Software and System House" specialised in information system engineering, integration and development. The quality of services and products represent the key features of its prestigious goals: high technology, staff growth and constant increase of Customers.

A widespread and detailed internal system of quality control and ongoing research activities, in association with Universities and Research Institutes, allows ITSLAB to operate at forefront technical levels.

ITSLAB participates in many projects, providing innovative solutions in the field of broadband communication and localization for the following customers: European Space Agency (ESA), Italian Space Agency (ASI), Ministry of Research (MIUR).

ITSLAB Space & Maritime Competence Centre, is involved in Ground Segment activities, mainly devoted in design, development and integration of Software component and Sub-systems, Integrated Application exploiting Satcom, Navigation, Earth Observation space assets, Safety and Security. Main focus is on:

- Location & Business Intelligence
- Service Oriented Architecture
- Cloud computing
- Semantic Interoperability

Time-to-Market and Change Management are based on Agile Programming paradigm.

In the framework of Next Generation Network (NGN) for **Future Internet**, ITSLAB develops simulators and communication framework for an optimized content distribution and delivery over ibrid multi-channel networks, both public and private, for Secure Access and Data Integrity over IP, for Autonomic Maintenance and Wireless Sensor Networks.

ITSLAB development process is compliant with **ECSS** and **Common Criteria**.

By investing in a Software Production Center in Torre Annunziata (Napoli, Italia) and in a Telecommunication Service Center in Torre del Greco (Napoli, Italia), ITSLAB meant to realize a technological pole with international relevance.

KAYSER ITALIA Srl Company Name: KAYSER ITALIA Srl Number of company's 38 employees (2012): Alessandro Donati **Turnover (in Millions of Contact person:** 5 Euros) a.donati@kayser.it E-mail: Member of a Trade AIAD **Association/Organization** Tel. office: Mobile: +39 335 7944067 +39 0586 562 262 Website: www.kayser.it

Presentation

Kayser Italia S.r.l. is a Small and Medium-sized Enterprise (SME), independent Italian system engineering company incorporated in 1986. Kayser Italia main area of business is in the study, design, manufacturing, integration, testing and commissioning of H/W and S/W systems and subsystems for:

- space applications
- advanced industrial research
- environmental monitoring

Main Areas of Activities

Design, manufacturing and qualification of space payloads, satellite systems and sub-systems.

| NEXT Spa | | | |
|-----------------|----------------------------|--|-----------|
| Company Name: | NEXT Spa | Number of company's employees (2012): | 300 |
| Contact person: | Giorgio Lo Verde | Turnover (in Millions of Euros) | |
| E-mail: | giorgio.loverde next.it | Member of a Trade Association/Organization | ASAS |
| Mobile: | +39 349 7334742 | Tel. office: | +39 06 22 |
| Website: | www.next.it | | 45 42 66 |

Main Areas of Activities

Founded in 1999, the **NEXT Ingegneria dei Sistemi S.p.A**. is an Italian Enterprise that provides systems and services in the field of Information Technology. Today, it employees 300 people whose 40 are focused on Space and Navigation activities, distributed among its Headquarter in Rome and other offices in Avezzano (L'Aquila), Napoli and Ronchi dei Legionari (Trieste),

The management, as well as most of the technical staff, has a strong background in the Space and Defence markets, an experience acquired in many years of work leading big IT firms working in the same markets.

NEXT core IT business is on the design and development of systems, applications and services based on Defence, ATM/ATC, Space & Satellite Navigation, and Telecommunication. More specifically, NEXT aims at providing Consultancy, Services and Software solutions for the following markets:

- Space & Satellite Navigation: Space Agencies (ASI, CNES, DLR, ESA, EUTELSAT) and Segment Prime Contractors (Thales Alenia Space Italy, Telespazio);
- Defence: Department of Defence, NATO, Selex Electronic System, MBDA;
- Air Traffic Control: Airports and ATM/ATC Prime Contractors (Selex ES, ENAV);
- Telecom: Telecom Operators (Telecom Italia, Albacom, Wind);

In particular, the people actually employed by **NEXT** have taken key roles in the past such as Project Managers, Project Leaders, Integration Leaders and Technology developers on various ESA and European Community projects.

NEXT is Qualified Partner of ESA-ESOC since March 2010 for the "Ground System Software related Activities (2010-2014)". NEXT has been certified CMMI Level 3 for Software development since October 2009.

NEXT has been certified following the UNI-EN-ISO 9001:2008, NATO AQAP 160, NATO AQAP 2110 **NEXT** is certified CCMI Level 3 for SW engineering

| NEXTANT | Spa | | |
|-----------------|---|--|-----------|
| Company Name: | NEXTANT Spa | Number of company's employees (2012): | 25 |
| Contact person: | Marco Romani Business Development Manager | Turnover (in Millions of Euros) | 1,8 |
| E-mail: | marco.romani@nextant.it | Member of a Trade Association/Organization | ASAS |
| Mobile: | +39 335 6080578 | Tel. office: | +39 06 22 |
| Website: | www.nextant.it | | 45 44 12 |

Company profile

NEXTANT SpA was established at the end of 2006, as Italian private owned; It's an ICT System House based in Rome, classified as SME according to the European Commission classification (96/280/EU).

Company mission is to develop and propose to the proper market sectors, innovative applications and services based on ICT technologies and Satellite Navigation, EO & Communication assets.

NEXTANT core competencies on Space & Defence market's domain plays a strategic role in the development of innovative application by enabling technologies. Passing through R&D Projects, product industrialization and commercialization, NEXTANT completing in this way the whole Technology Transfer Process.

Innovative applications and services are already available in the field of Smart-mobility (solution for both citizens and tourists transportation support and information), Emergency (mission management and resource planning), Cultural Heritage (safeguard, fruition and prevention), Maritime (search & rescue, mission management and access to harbour and docks), Defence (air defence systems radar), and Aeronautics (Air Traffic Management system 2D & 3D and flight information systems of General Aviation aircraft). Based on the following ICT knowledge:

- Satellite technologies (Navigation (EGNOS/GALILEO), Communication, and Earth Observation);
- Innovative HMI techniques based on Virtual and Augmented Reality techniques (e.g. applied to the development of non-conventional radar displays for the future Air Traffic Control);
- Engineering and architectural aspects (e.g. Enterprise Architecture, Model Driven Engineering, SOA, ...) applied to the development of complex safety critical systems (e.g. next generation ATM systems).

NEXTANT is currently involved in National/European R&D project and programs, such as in the ATM sector: SESAR (Single European Sky ATM Research), eATMS (new ATM Italian program) and S2BAS (Small airport & small aircraft flight information services) in the ESA-ARTES20 IAP program; IRIS ANTARES in the SATCOMM domain; WHERE in the Earth Observation/GMES domain. Some others in the past on Transport area of European Frame Programme, such as: CUSPIS (FP6), TWIST (FP6), SPESSS(FP6), AD4 (FP6), HARMLESS (FP6), GIROADS (FP6), Safeport (FP7), Meduse (FP7), Enhanced Wisetrip (FP7).

NEXTANT Spa



Company skills is over:, GNSS, Location-based systems, Multi-link communication concept and technologies, Wireless communication, Satellite and terrestrial data communication, Satellite Earth Observation systems, ATM concepts and systems, ADS-B surveillance, Flight Information Services, HMI techniques based on Virtual and Augmented Reality technologies, Visual Modelling and Simulation, Verification and Validation task. WebGIS systems, EO mapping analysis.

NEXTANT aims at completing the process, through the industrialization of the prototypes and demonstration components, and packing them into competitive solution to propose to the market sectors requiring high degree of innovation.

Over the proper market sectors with strong stakeholders relationship, NEXTANT has already completed the process, and some of its solutions are already in the offer portfolio. Market oriented products & services:

- VECTOR: "real time monitoring system for sensitive items transportation" to monitor and control "sensible goods" such as: Cultural Assets, Fresh and Frozen Food or Dangerous Materials
- NESS: "Emergency Support System": "NEXTANT Emergency Support System" a command & control service platform for emergency missions management and on-field resources deployment. Fire Brigade, Law Enforcement, Civil Protection, State Forestry Corps and many others organizations can take advantages in the intervention readiness and decision making process as well as in the efficiency resources allocation.
- NEXTOUR: this is an application that provides innovative end user service for fruition of Art
 Cities, Archaeological areas and for the safeguard of Cultural Assets. The IT platform can
 help the tourism operators to manage end user emergency along site visits.

Custom oriented technology solutions:

- o **D3**: an IT framework for the development of 3D distributed interactive applications aimed at representing geo-referenced 3D worlds and capable of integrating heterogeneous surveillance data (e.g. GNSS data, radar data) coming from both operational and simulation systems. D3 is also useful for Cultural Heritage support by mean of 3D graphics representation of archaeological areas or urban building blocks of common interest, ATM scenarios. This technology can be an asset in the environment monitoring application such as those of GMES.
- Detector: a EO & GIS framework for the monitoring and safeguard of natural heritage in the areas of common interest. The developed application will be able to provide data for Urban Policy Planning, Critical Infra-structure Monitoring, Environment Protection, Cultural Heritage monitoring & control. The data management will take into the account the following elements: structural changes, changes detection, environment pollution and climate changes.

NEXTANT solutions are based on the most advanced IC Technologies, providing the best solution to the more demanding functional and service needs through a higher level of flexibility, scalability and reliability.

PLANETEK ITALIA Srl Number of company's **Company Name:** PLANETEK ITALIA Srl 44 employees (2012): Paolo Manunta **Turnover (in Millions of Contact person:** 4,3 Euros) E-mail: Member of a Trade manunta@planetek.it AIPAS **Association/Organization** Tel. office: Mobile: +39 080 96 Website: 44 200 www.planetek.it

Planetek Italia is active in Geographical Information Systems and in remote sensing images processing technologies and develops land monitoring application solutions that supports the management of cartographical databases. Solutions developed in the main European programs with an eye on local needs. The strategic asset of **Planetek Italia** is represented by its human resources: differentiated and complementary professional profiles that combine high specialization with a broad overall view of the problems in this branch. Every our customer can count on innovative services, personalized and complete, from project research and development, to the test and post-sale assistance.

Main Areas of Activities:

- Value Added Services and Products based on Earth Observation data processing
- Spatial Data Infrastructure
- Space Systems

PROGETTI SPECIALI ITALIANI Srl **Company Name:** PROGETTI SPECIALI Number of company's 200 **ITALIANI Srl** employees (2012): Armando Orlandi **Turnover (in Millions of Contact person:** 15 Euros) E-mail: Member of a Trade aorlandi@intese.com **ASAS Association/Organization** Tel. office: Mobile: +39 06 32 Website: 15 001 www.intese.com

Main Areas of Activities

Progetti Speciali Italiani Srl (PSI) acts as a System Overlay of the actual capability of the parent companies, in advanced systems in the Aerospace, Defence, Security and Energy sector.

PSI has been incorporated at the beginning of 2006 with the declared purpose to introduce new system concept in the sectors of Aerospace, Defence, Security and Energy. PSI industrial base is formed by

- Information Technologies Services srl
- Mediterranea Elettronica srl
- LAER Spa
- NHOE Srl
- direct participation of Italian Aerospace Managers

Possible partners: Companies involved in EU projects; SME working in design and development of Nanosatellites for Earth Observation, Satellite for telecommunication systems, Ground segment for space activity.

S.TI.P. Srl S.Ti.P. S.r.l. Number of company's Company employees (2012): Name: Contact Nicola Broccardo **Turnover (in Millions of** person: Euros) Member of a Trade E-mail: info@stipsrl.it **AIAD Association/Organization** Tel. office: Mobile: +39.0445.575079 Website: http://www.stipsrl.it/

Our production consists in making:

Patterns: with positioning on the plate

Core boxes: for all types of core machine (H200, H30, H2, SPC 15, SPC 180) Complete, in all, with shootings, vents ejection system etc ...

STIP offers also an important support for the design and construction of special equipment as core assembly jigs or any kind of equipment necessary to move the tooling; if necessary we can design and plan the project, cooperating with our customer.

For all our production we use mainly materials as aluminium, steel, cast iron, resin and wood (not plastic). All these material are supplied to us by qualified suppliers.

We use CN machine and regular machine tool

| SELEX ES S | ра | | |
|-----------------|--------------------|--------------------------|----------|
| Company Name: | SELEX ES | Number of company's | 2.710 |
| | | employees (2012): | (SELEX |
| | | | Galileo |
| | | | only) |
| Contact person: | | Turnover (in Millions of | 801 |
| | | Euros) | (SELEX |
| | | | Galileo |
| | | | only) |
| E-mail: | space@selex-es.com | Member of a Trade | AIAD |
| | | Association/Organization | |
| Mobile: | | Tel. office: | +39 0331 |
| Website: | www.selex-es.com | | 1753357 |

Main Areas of Activities:

Selex ES brings together the activities of SELEX Elsag, SELEX Galileo and SELEX Sistemi Integrati to create a unified technological leader in electronic and information technologies for defence systems, aerospace, data management, infrastructures, land security and protection and develops sustainable 'smart' solutions.

Selex ES is an international business, with a workforce of approximately 17,900 people and main operations in Italy and the UK. The company has a strong industrial and commercial footprint in the US, Germany, Turkey, Romania, Brazil, Saudi Arabia and India and a customer base spanning five continents. Space activities are carried out within the Space Line of business.

SELEX ES supplies equipment, subsystems and payloads to European Space Agency, Italian Space Agency (ASI), NASA and other international customers.

Space activities include attitude sensors, electro optical instruments, mission payloads, RF equipment, Passive Hydrogen Maser Clock, photovoltaic assembly, power conditioning and distribution, drilling sample collection systems, robotics arms, motion control software, gyros and IR detectors.

Space operations take place in Italy and UK. In Italy there are plants in Florence, Nerviano and Pomezia, where all design, development, manufacturing and testing activities are carried out on an area totaling 18,000 m2, a large amount of which hosts clean rooms and laboratories equipped with appropriate space simulators for environmental and functional testing. In UK space operations are performed in Southampton and in Edinburgh plants.

SISTEMI SOFTWARE INTEGRATI Spa **Company Name:** SISTEMI SOFTWARE Number of company's 230 employees (2012): **INTEGRATI Spa Turnover (in Millions of Contact person:** Luigi Calzeroni 15 Euros) E-mail: luigi.calzeroni@ssi.it Member of a Trade AIAD, **Association/Organization AFCEA** Tel. office: +39 099 47 Mobile: +39 335 6327415 Website: 01 347 www.ssi.it

Main Areas of Activities:

- ► Mission Planning Systems
 - Earth Observation Space Systems
 - Satellite TelecommunicationSystems
 - International Space Station (ISS) Columbus Laboratory
- ► On-Board Software
 - On-Board Data Handling, TM/TC
 - Instrument & Payload Mode Handling
 - Attitude & Orbit Control (AOC)
 - On Board Autonomy & FDIR
 - Instrument & Payload Mode Handling
 - Avionic mission tactical applications
 - Safe Mode Functions
- ► Monitoring & Control Systems
 - Monitoring of parameters, events, alarms
 - o Events Correlation
 - Remote Commanding
 - Recording and Playback

- Archiving & Reporting
- o Remote Configuration Management
- o Trouble Ticket Management
- Performances Reports and Statistics
- Data fusion and management of onboard sensors data
- Communication Management (Link Y)
- o Training and simulation
- ► Automatic Testing Systems
 - Test Preparation, Execution and Analysis functions
 - Generation of documentation accordingly to Standard MIL-STD-498 and ECSS
 - Support functions in writing test procedures
 - Execution of test procedures in realtime mode or batch mode
 - Data logging archiving and analysis
 - Swarm Intelligence Systems of cooperating agents (DDS)

| SITAEL Spa | | | |
|------------|-----------------------------|--------------------------|---------|
| Company | SITAEL Spa | Number of company's | >150 |
| Name: | | employees (2012): | |
| Contact | Francesco Svelto | Turnover (in Millions of | 12 |
| person: | | Euros) | |
| E-mail: | francesco.svelto@sitael.com | Member of a Trade | AIPAS |
| | | Association/Organization | |
| Mobile: | | Tel. office: | +39 080 |
| Website: | www.sitael.com | | 5321796 |

COMPANY PROFILE

SITAEL Spa is an Italian Medium Enterprise able to cover all the processes needed for the Design, Development, Production and Qualification of Instruments, Electronics and Microelectronics Systems compliant with high reliability standards. Counting on more than 150 high qualified employees and state-of-the-art facilities, SITAEL is strongly involved into Aerospace and Industrial Markets. Quality Assurance Certifications: EN 9100, ISO 14001:2004, SA8000.

PRODUCT AND ACTIVITIES

Design and MAIT of small payloads: EO Instruments Integration, Advanced SensorsDesign and MAIT of space-oriented and flight electronic systems: Power supply electronics (HV, LMV, Specific PS), Control Electronics for Complex Systems (Thermal/Cryogenics, Gyro, Electrical Propulsion), Payload Data Handling/Processing Units, SpW/CAN/1553 Multi-bus Boards; EGSE, Front-end ElectronicsDesign and Production of rad-tolerant microelectronic devices: Custom ASICs (Front-end and ADC for sensors and actuators, Serial buses controllers and transceivers, Discrete commands management, Power, Coding/Decoding), IP Cores for Complex FPGAs (SpaceWire Bridges, Microcontrollers, Serial Buses Controllers, Cryptography systems, Radiation Mitigation, DSP).

REFERENCES

Main Aerospace Customers: ESA, NASA, CNES, JAXA, ASI, Thales Alenia Space, EADS Astrium, OHB, Selex Galileo, COM DEV, RSC Energia.

SITAEL Spa



Main Achievements on EO Space Programmes: MUSIS CSO CryoCooler Electronics, SENTINEL 1 SAR TGU DC/DC Converters, COSMO SkyMed 2nd Generation CMGA CU, EarthCARE MMFU PSB, ICESat-2 ATLAS HVPS, SENTINEL 1 16HPCMD ASIC, SENTINEL 3 SRAL-C Ku RFU PSU, SWARM CEFI HVPS and LVPS.

Main Achievements on Scientific Space Programmes: ASTRO-H HVPS for APD, CdTe and PM sensors, CALET HVPS for APD and PM sensors, EXOMARS CANopen Controller IP Core, INTEGRAL JEM-X HVPS, MSL/CURIOSITY Rover Environmental Monitoring System ASIC, PAMELA Sensors and Electronics Integration for all Instruments, AMS-01/AMS-02 Sensors and Electronics Integration for all Instruments, GAIA PDHU PSB, ATV CASA-2 CANbus 2.0 Controller ASIC.

SMART SOLUTIONS Company Name: Smart Solutions Number of company's SME employees (2012): **Turnover (in Millions of Contact person:** Andrea Esposito Euros) E-mail: Member of a Trade ASAS **Association/Organization** Tel. office: Mobile: Website: http://www.smart-solutions.com (website under construction)

Main Areas of Activities

SMART Solutions is a company working with various Customers and Partners (Companies, Universities, Research Centres and Governative Agencies across Europe) in the Space, Defence, Aeronautics, ICT, Security, Energy and Environment sectors. Its main areas of activity are: Innovation, R&T Development Projects; EU International Projects; Engineering activities and (Design & Analysis); Programme/Project Management, Risk Management and Subcontracting Management; Bid & Proposal Management.

SPACE ENGINEERING Spa Company Name: Number of company's SPACE ENGINEERING 140 employees (2012): Spa Romano Fiore **Turnover (in Millions of Contact person:** 16,3 (2011) Euros) Member of a Trade E-mail: romano.fiore@space.it AIPAS, **Association/Organization ASAS** Mobile: Tel. office: +39 06 22 +39 347 0846332 Website: 59 5248 www.space.it

Main Areas of Activities:

Since 1989 Space Engineering operates as a leading innovative technology and HW/SW supplier, in the Space and TLC Markets, at both system level (performance assessment, design) and equipment-level (HW/SW design & development of Satellite Terminals, Antennas, Modems, Test Beds, Pseudolites) and owns a significant number of international patents (antennas, scientific SW, DSP and radar). It enjoys a wide and successful experience of collaboration with Space Agencies (ESA, ASI and Italian MoD), with large Prime Contractors (Thales Alenia Space, Eutelsat, Telespazio, Selex Sistemi Integrati) as well as with medium/small Partner Companies.

It controls Teleinformatica e Sistemi s.r.l (with Assembly, Integration and Testing Plant in Potenza), and Collaborative Engineering s.r.l. (Consultant Company).

| TECHNO SYSTEM DEV. Srl | | | |
|------------------------|---------------------|--------------------------|------------|
| Company Name: | TECHNO SYSTEM | Number of company's | 15 |
| | DEV. Srl | employees (2012): | |
| Contact person: | Francesco Monti | Turnover (in Millions of | 2 |
| | | Euros) | |
| E-mail: | fmonti@tsd-space.it | Member of a Trade | AIPAS |
| | | Association/Organization | |
| Mobile: | +39 3357681839 | Tel. office: | +39 081 52 |
| Website: | www.tsd-space.it | | 63 574 |

Main Areas of Activities:

Design, development and manufacturing of electronic systems, subsystems and units for space applications; the main families of products are represented by Electronics for Optical Payloads and Digital Video Systems (Image Acquisition, Compression and Image Processing, Data Handling & Storage), Spacecraft Avionics (Data handling System, On board Computers, Remote Terminal Unit, Power Management System), Scientific Payloads & Instrument (Control and Data management System, Real Time processing, video diagnostic), Ground Segment (EGSE, SCOE). TSD track record includes flight proven applications for Satellites, Capsules, ISS, Sounding Rockets, UAV/USV, Stratospheric Balloon.

| TELESPAZIO Spa | | | |
|----------------|---------------------------------|--------------------------|-------|
| Company | TELESPAZIO Spa | Number of company's | |
| Name: | | employees (2012): | |
| Contact | Cristina Valente | Turnover (in Millions of | |
| person: | | Euros) | |
| E-mail: | cristina.valente@telespazio.com | Member of a Trade | AIAD, |
| | | Association/Organization | ASAS |
| Mobile: | | Tel. office: | |
| Website: | www.telespazio.com | | |

Main Areas of Activities:

Telespazio, a joint venture between Finmeccanica (67%) and Thales (33%), is one of the world's leading players in satellite services with activities ranging from the design and development of space systems to the management of launch services and in orbit satellite control; from Earth observation services, integrated communication, satellite navigation and localisation, to scientific programmes. The company, headquartered in Rome, relies on an international network of space centres and teleports and operates worldwide through many subsidiaries.

THALES ALENIA SPACE ITALIA Spa **Company Name:** THALES ALENIA SPACE Number of company's 600 employees (2012): **ITALIA** Spa **Turnover (in Millions of Contact person: Armando Tempesta** 200 Euros) E-mail: Member of a Trade AIAD **Association/Organization** Tel. office: Mobile: +39 06 51 Website: 56 11 www.it.thalesgroup.com

Main Areas of Activities

Thales Italia boasts a solid portfolio of dual-use products and technologies for both civil and military markets. Its areas of business are:

- air traffic management, with capabilities in landing, navigation and control systems;
- o defence, with capabilities in military telecommunications and electronic warfare; it designs, infrastructural/tactical telecommunications networks;
- o security and transportation, with capabilities in rail signalling, and in systems for supervision, control and management of information for transport and sensitive infrastructures and IT infrastructures for data transmission, processing and protection.



Italy – Industrial Associations Profiles



| AIAD | | | |
|-----------------|--|--|---|
| Company Name: | AIAD | Number of company's employees (2012): | 14 |
| Contact person: | Maurizio Madiai Aerospace Sector Coordinator | Turnover (in Millions of Euros) | n.a |
| E-mail: | m.madiai@aiad.it | Member of a Trade Association/Organization | ASD, AeroSpace and Defence Industries Association of Europe |
| Mobile: | +39 3356603181 | Tel. office: | +39 06 48 |
| Website: | www.aiad.it | | 80247 |

Main Areas of Activities

AIAD is the Federation, member of Confindustria, that represents the Italian Companies for Aerospace, Defence and Security.

It includes almost all the national enterprises that operate with advanced technology in the design, production, research and services activities for the civil and military aerospace, military navy and army sectors along with all the related electronic systems connected to these sectors. AIAD maintains strong relationships with national, international or NATO related institutions in order to promote, represent and guarantee the interests of all its industries.

On this subject, significant action has implemented by NIAG (NATO Industrial Advisory Group) thanks to its expertise.

As representative of the Italian Industry, it is a member of the equivalent European Association (ASD). In this context it acts as the point of reference for all the national and foreign institutions for the coordination of all those activities in which there is a need to represent the sector's national interest.

It draws and submits reports together with industrial positions to the different government bodies and to any other foreign institutional organization.

AIAD



AIAD provides a significant contribution to the development of the sector's plans that will be developed by the Defence bodies and/or other Government Administrations that deal with research or innovation, procedure, technical and contract guidelines.

There is a strong cooperation with the Administration, the Secretariat General of Defence, the Ministry of Foreign Affairs, the Ministry of Economical Development, University and Scientific Research or other bodies and institutions such as ENAC, ASI, CNR, etc.

The Federation coordinates a variety of work groups in national and international sectors, it promotes the organization of seminars and congresses events and it collects statistical reports on the performance of the main economical indicators. Furthermore AIAD is the actor of the intensive promotional activities abroad, both to coordinate the Italian participations to the most important international events and to organize and direct not only the mission of our enterprises abroad but also the visits of foreign delegations in Italy.

AIAD provides support to the legislative and training activities through UNAVIA but is also is a member of UNAVIAcert Organ of Quality management systems' valuations and certifications and for the Environment of the Aerospace enterprises. Also ANPAM National Association of Manufacturers of Firearms and Ammunition for Sport and Civil Uses, and ASAS, Association for Space-based Applications & Services, are members of AIAD.

| AIPAS | | | |
|---------------------|---------------------------------------|---|--|
| Company Name: | AIPAS | Number of company's employees (2012): | 2 staff people + Board of Directors (9 Directors) |
| Contact person: | Giovanni Sylos Labini President | Turnover (in Millions of Euros) | n.a. |
| E-mail: | info@aipas.it | Member of a Trade Association/Organiz ation | SME4SPACE, European Panel of Space SMEs Association (www.sme4space.org) |
| Mobile: Website: | +39 347 0329348 www.aipas.it | Tel. office: | +39 06 6869222 |

Main Areas of Activities:

AIPAS is the Italian Space SMEs Association created in 1998 with the objective to serve the needs of Small and Medium sized companies operating in the space sector.

AIPAS is a No-Profit Association and it aims at:

- o promoting in the various national and international centres the general interests of Space SMEs;
- Networking among associated members: creation of Consortia and groups of research;
- o Encouraging dialogue and cooperation between SMEs and large enterprises;
- Collaborating with ASI for the definition of an effective policy towards SMEs and monitoring of the results (MoU with ASI 2010-2013 and 2013-2016);
- Representing the associated members at Institutional contexts and organizing national trade missions to foreign countries;
- o taking part to surveys and/or studies concerning space industry in Italy;

AIPAS



- o promoting and examining the legislative, administrative, economical and financial provisions that are of interest of its Associates;
- o joining other national and international Associations or Agencies in the interest of its Associates: AIPAS is the founder of SME4SPACE (www.sme4space.org), a panel of space SMEs Associations representing most of the ESA Member States.

AIPAS represents 25 associated members, including 2 Consortia, representing indirectly more than 40 space SMEs all over Italy.

| ASAS | | | |
|---------------------|---|--|------------------------------------|
| Company Name: | ASAS – Association for Space-based Applications and Services | Number of company's employees (2012): | 1 |
| Contact person: | Emanuele Rizzo | Turnover (in Millions of Euros) | n.a. |
| E-mail: | asas@asaspazio.it | Member of a Trade Association/Organization | Confindustria S.I.T and AIAD |
| Mobile: Website: | +39 3351271474 www.asaspazio.it | Tel. office: | |

Main Areas of Activities:

As also shown by the Europe 2020 program, the space activities and technologies represent a powerful tool to develop knowledge and innovation, to support promotion of wellness and quality of life, as well as to contrast natural disasters and critical emergencies. We can stress the positive impact of use of space-based infrastructure and applications for public security, environmental protection, transport safety, telecommunications, health, energy, agriculture, control and management of land and many other sectors.

In this scenario a key role is played by the service companies because being coupled to the end-users requirements they can monitor their real needs and the relevant evolution providing an effective feedback thus leading the contribution of the space sector closer to the market.

The Association has become the leading promoter of several initiatives of great impact for the represented companies in collaboration with the Italian Space Agency which reached a significant result in the on-going coordination activities contract signed by the Agency and by the national industrial associations; has promoted together with the other space industrial associations, the Industrial Board "Space Italy", playing a key role in the definition of the industrial priorities and suggested projects; the establishment of the Technological Platform SPIN-IT (Space Innovation in Italy) involving all the major companies, universities and research institutes.



Czech Rep. – Companies Profiles

Evolving System Consulting (ESC)

About

- ESC is a leader in the field of on-board software in the Czech Republic and it is one of the leading Czech SMEs in the field of innovative R&D projects with a focus on aerospace projects.
- Additionally ESC is experienced in other areas like custom embedded systems for industrial automation, PLC technology, data transmission and microwave high frequency applications.

Capabilities:

Technical know-how

ESC has a team of highly qualified software and hardware engineers, who have made several flight software packages as well as ground segment hardware and software for various satellite instruments and unmanned flying vehicles. The personnel is competent in real-time and embedded systems programming and has already collected over 100 man years in space engineering work.

Besides that ESC employs software architects, database engineers and test & configuration engineers. ESC's space engineers are familiar with ECSS standards.

Field of Specialization

- Space qualified on-board software, Software quality, Embedded Software, Real-time Software, Control Systems, Navigation, Software Architecture
- Hardware Design, HW/SW Development, EGSE/SCOE, Embedded microcontrollers, Data transmission
- Microwave high frequency applications

"Space" objectives for next years ESC is positioned to be one of the best players on a field of embedded systems development specialists for

- Scientific
- Commercial
- Military
- Satellite on-board systems in Europe.

ESC is very interested in ESA projects in

- Downstream services
- Telecommunications
- Ground segment data processing software
- Earth observation and
- Satellite navigation

ESC is ready to succeed in new ESA ITTs.

More information on website: http://www.evolvsys.cz/news/index.html

G.L. Electronic

About

The company G.L. Electronic was established in 2003 on ground of the evaluation of the professional experience gained during a long-term acting in foreign companies engaged mainly in production and application for space, air and military technologies.

Capabilities

G.L. Electronic has become a qualified company since 2008. G.L. Electronic offers technical support especially in the field of Space and Ground technologies focused for the following main assignments:

- HW SW Design: Design of electronic systems (power , analog , digital board); SW Design (data processing)
- Production: Space activities Hi-rel manufacturing, rework and modifications on the flight model, EQM ,EM) according to ESA ECSS procedures, both internal cabling and external harness, complete implementation of bonding, quality control-visual inspection, treatment and final integration of the units.
- Measurement: testing of HW and SW of the particular PCB's according to the customer's requirements, or even the final unit tests.

Today the team of the company G.L. Electronic consists of professionally qualified ESA trained and certified technicians. The certification is according to the ESA-ECSS-Q-70 Standards issued by the company Instituto Italiáno della Saldatura in Genova that is authorized to award the ESA certification. ESA CERTIFIED: CAT 2 & CAT 3: ECSS-Q-70-08, ECSS-Q-ST-70-28, ECSS-Q-ST-70-38

Space segment:

HI-REL electronic manufacturing for Space activities are performed by ESA certified operators in the 100.000-class cleanroom. G.L. Electronic has been a qualified company since 2008, which means we have over 4 years experience with providing technical support on the international projects.

Ground Segment & Maintenance

Since 2007-2012 participates on ESA - CNES projects in Centre Spatial Guyanais in French Guyana or the station that is operated by the Italian Space Agency (ASI) in Kenya (Malindi).

G.L.Electronic can offer customers a complete technical support for ground segment solution providing all the hardware necessary to operate and maintain.

Technical Support & consultation

G.L. Electronic has been a qualified company since 2008, which means we have over 4 years experience with providing technical support especially in the production of: HI-REL electronics for space projects - mounting, rework and modifications on the PCB (level EM, EQM, FM) according to ECSS, both internal cabling and external harness, complete implementation of bonding, quality control-visual inspection, treatment pre MIP boards and pre MIP units.

Hi-Rel Manufacturing

G.L.Electronic provides complex realization of electronics projects especially in the field of Hi- rel technologies. Our firm has been a qualified company since 2008, which means we have over 4 years experience with providing technical support on the international projects especially in the production.

More information on website: http://www.glelectronic.cz/index.php?lang=en

Honeywell

About

Honeywell is a leading global provider of integrated avionics, engines, systems and service solutions for aircraft manufacturers, airlines, business and general aviation, military, space and airport operations and has a long and proud heritage in the Czech Republic since its first office opened in 1962 in Prague. Honeywell Aerospace now operates from three locations across the Czech Republic, Prague, Olomouc and Brno. Each of these sites offers a range of skills, capabilities and technologies to the Honeywell Aerospace portfolio.

In the Space sector Honeywell provides a wide range of high quality, innovative products that have contributed to the mission success of many different and varied space platforms. We offer our customers our commitment to excellence and complete solutions for space applications. Our heritage of providing best value avionics, controls and semi-conductor solutions for the productive use of space demonstrates both our world-class capability and our long-term commitment to space programmes.

Leveraging its Industrial and Research capability across the Czech Republic, Honeywell serves the European Space Agency with Advanced Studies and State of the Art Research and Technology capability on the IRIS as well as the Czech Industry Incentive Scheme programs. Honeywell Aerospace footprint in the Czech Republic builds upon a history of excellence in serving the European Space industry and Primes such as Thales Alenia Space, EADS Astrium or OHB, in the following areas:

Capabilities:

- Environmental Control and Life Support Systems Honeywell is a leader in environmental control and life support systems with over 500 million aircraft flight hours logged
- Guidance and Navigation Honeywell's Space group has more than 40 years experience producing first-rate guidance, navigation and control products for various space platforms
- Integrated Systems Data Processing Honeywell provide a family of high performance processors to meet the demanding space environment
- Microelectronics Honeywell's radiation hardened electronics and radiation technology provide military aerospace system designers a strategically hardened family of products to reduce risks in space and ensure mission success
- Vehicle Positioning Attitude Controls Honeywell has both the commitment and the capability to provide control moment gyroscope-based momentum exchange systems, pointing and structural controls, and wheel assemblies required for today's commercial and government satellites

More information on website: http://honeywell.com/Worldwide/Pages/czech_republic-cz.aspx

Iguassu Software Systems

About

Iguassu Software Systems (ISS) excels in design and development of technology software applications and in aerospace marketing consultancy for Latin America and central Europe. Its core business is with the European Space Agency (ESA) and other space customers. During the transition period before full ESA membership (PECS 2005-2008), ISS was the most successful Czech space company, having been awarded 6 contracts, 2 of which through participation in international competitive tenders. Since the Czech accession to the ESA convention at the end of 2008, ISS is again in the forefront - the only Czech company to be awarded more than one project (in fact 3) in the ESA Czech industrial incentive scheme in 2009 and the only one to win work in competitive tenders with Astrium D and EOX in 2010.

Iguassu Software Systems

- has well over 100 man years of worldwide space experience
- has staff working with ESA since 1975
- developed successful business partnership with renowned ESA suppliers in Austria,
 Italy, Germany, Spain and the United Kingdom
- has won more ESA tenders than any other Czech company

Principal skills

- Technology software development
- ERP and EDI consultancy
- Latin-American aerospace consultancy
- International experience and mobility

Principal business areas

- Software design, development and consultancy in GNSS and EO processing.
- ISS skills also include development of real-time systems, embedded systems, and studies.

Iguassu Software Systems Real-Time Services

- Technological process control
- Monitoring systems
- Automated testing systems
- Data acquisition, communication, real-timedata processing and data presentation

ISS Business Applications

- Highly experienced ERP consultants (infor, BPCS..)
- Broad EDI knowledge applied to worldwide projects
- Localisation of imported software products and their local maintenance

More information on website: http://www.iguassu.eu/eng

L.K. Engineering, s.r.o.

About

LK Engineering (LKE) was established in 2001 and provides engineering services in mechanical area. The core activities are focused on design and analysis using advanced engineering computations. LKE can offer a solution to companies with product R&D activities in each part of design process such as an innovative design proposal, conceptual study and detailed design evaluation.

We use the most advanced computational technologies and knowledge available to satisfy challenging requirements of today's products. These techniques and our experience help to reduce a cost and time during a development period and contribute to product competitiveness.

LKE provides service to diverse group of clients and team of LKE experts has successfully accomplished projects for various areas of industry such as power generation, aerospace, transportation, architecture, etc.

Capabilities:

- Stress, thermal and fluid dynamic calculations
- Fatigue life and fracture mechanics evaluation
- Design of highly loaded components and optimization
- Numerical computation involving complex physical effects
- Product qualification acc. to specified code
- Expertise, reviews and consultation
- Development of unique computational software
- Technical documentation
- Project management

Space core activities:

- Thermal design and analysis of the spacecraft subsystems
- Structural evaluation of spacecraft components
- Launcher aerodynamics/aeroacoustics

More information on website: http://www.lke.cz/en/index_en.html

ROBOTSYSTEM COMPANY REFERENCES

About

Company name and location: ROBOTSYSTEM, s. r. o., Czech Republic, Ostrava

Year established: 2006

Number of employees: 17 specialists and several service teams

ROBOTSYSTEM Ltd company specializes on highly special applied research and development in the field of robotics, mechatronics, automation, transportation, safety and rescue technologies. We solve large extend complex projects including complicated technologies and construction units belonging to the above mentioned areas. Projects usually involve design, model and product documentation (3D model and drawing), prototype realization, functional testing and optimization.

Capabilities

Examples of research and development activities:

- Research, development and implementation of service robotic system prototypes including robotic rescue and intervention technologies
- Research, development and implementation of mobile platform prototypes with high handling ability including implementation of robotic elements
- Research, development and implementation of locomotive prototypes including subsystems with wheel hub drives
- Research, development and implementation of special robotic prototypes in the field of transport devices in healthcare

Our Company can present a wide range of noticeable results and the most tangible representatives are completely realized projects finished by output in the form of a prototype.

More information on website: http://www.robotsystem.cz/?setlang=EN

SIEMENS CONVERGENCE CREATORS, S.R.O.

About

Siemens Convergence Creators, s.r.o. is the global partner for communication demands within a broad range of market segments. It stands for innovative products, turnkey solutions, and services in the fields of communication networks, service and customer management, public security, multi-media infotainment, and aerospace technology.

The Space department in the Czech Republic was established in 1998 and has been involved in developing various software solutions for the European Space Agency (ESA), the German Space Agency (DLR), the European navigation system Galileo, as well as for leading satellite operators.

We have a longstanding expertise in executing complex international projects related to satellite communications and ground segment solutions.

Capabilities

Satellite

Our team contributes to the customization and on-going evolution and maintenance of the Siemens SIECAMS product family.

- SIECAMS: Siemens Carrier Monitoring System
- Communication Solutions
- Carrier Monitoring & Signal Analysis
- Interference Localization

Ground segment solutions

Our team participates in various feasibility studies and in the development, evolution and maintenance of the SCOS-2000 based Mission Control and Check-out systems, monitoring and control subsystems at ground stations, Earth Observation data management and other infrastructure software for ESA, DLR, and other customers.

Satellite Control & Check Out Equipment (SCOE/EGSE)

- SCOS-2000 based Mission Control System solutions:
- Ground Station Monitoring & Control Systems
- Earth Observation Infrastructure
- Performance Evaluation & Analysis
- ESA-gualified partner under the "Ground System Software
- Related Activities" (GFC8) for IT Domains.

More information on website:

https://www.cee.siemens.com/web/at/en/csb/cvc/Pages/home.aspx

TOPTEC

About

Regional Centre for Special Optics and Optoelectronic Systems (Turnov OPToElectronic Centre – TOPTEC) was established as a direct extension of the optical department of Institute of Plasma Physics ASCR, v.v.i. in Turnov (formerly known as Optical Development Workshop ASCR). The project of research centre continues in more than 40-year-long tradition of research and development of optics at Turnov department of Academy of Sciences. The The TOPTEC Centre is currently the only research and development site focusing on ultraprecise and special optics in the Czech Republic.

The TOPTEC Centre is primarily engaged in research and development in the field of special optics and advanced optical systems. For several decades, Turnov optical department of ASCR has been offering high-quality prototype and small batch production, which has become an inherent part of industrial development and successful transfer of R & D results into practice at our customers' facilities. The TOPTEC Centre also provides a wide range of services such as design and simulation of optical systems, precise measurement of many physical - especially optical parameters, design of fine-mechanics structures for use in optics, series of analysis and numerical simulation, expert's report in optics, education, etc. The TOPTEC Centre participates in national and international research and development projects. The Centre is also involved in space research projects within the ESA. In connection with submission of proposals and solution of these projects, any offer of cooperation is welcome.

Capabilities

Optical manufacturing

- CNC form generators, CNC milling machines, Single Point Diamond Turning, centering machines, drills, saws – all with diamond tools for productive preparation
- Robotic polishing machines, Ion beam polishing machines, Machines for ultraprecise hand manufacturing

Mechanical production

 CNC 5 – axis machining centre, CNC lathes, Classical precise cutting machines: milling machines, lathes, grinding machines, saws, drills

Measurement and analysis

- Measurement of form of optical surfaces interferometers: flat, spherical, aspheric, optical profilometer, shadow tests
- Measurement of surface quality confocal microscope, polarisation microscope, electron microscope, white light interferometer, stereomicroscopes
- Angle measurement optical goniometer, collimators
- Thin layer and crystal measurement elipsometer, UV-IR spectrometers, stauroscopes, X-RAY goniometer
- Dimension measurement Abbe length gauge, contact 3D measurement, classical length and angular gauges
- Refractive index measurementrefractometers, precise goniometer
- Measurement of optical values multipurpose optical bench, fronto-focimeter

Software

- Optical design SW Zemax, TracePro, optical software for analysis Virtual Lab, developed
- SW for double refractive optics and other optical analysis, SW for design of thin layer systems
- SW for CAD, etc.

More information on website: http://www.toptec.eu/

TTC TELEKOMUNIKACE, s.r.o

About

TTC TELEKOMUNIKACE Company has been a pioneer of modern telecom and communication solutions since its very founding and is one of the leading companies in applying these into practice, especially in very specific and challenging areas such as energetics, military, land and air transport management, etc.

Products and services developed and supplied by our company are custom-built on the following four pillars:

- Own Transmission and Communication Systems and Solutions
- Integrated Systems
- Services of Telehouse and Data Center
- Custom Development and manafacture

By utilization of these four pillars, with mutual complementary and interlacing themself, we have created a complex ICT solution that we offer you through the brand name of SIMPHONY.

Capabilities

Own Transmission and Communication Systems and Solutions

There is portfolio of own products is represented by:

- Dispatching and communication solutions with IP TouchCall system
- Solutions built on transmission system PCM30U-OCH
- Communication Gateway Systems IPGA16 and IP communications nodes IPGW

Integrated Systems

Delivering of complex integrated solutions for communications, data transmission, security and surveillance systems. The basis of such solutions is a set of integration and management tools, a set of adapters for products from reputable suppliers of the mentioned technologies, but also a wide range of custom products TTC, especially from the field of communication gateways, dispatcher or communications terminals, digital multiplexers, transmission systems etc. We are developing services of system integration.

Services of Telehouse and Data Center

We operate for your own superior Telehouse and Data Center with a wide range of services in field of data and communications infrastructure, such as hosting services (Rack Housing), outsourcing of telehouse services and virtualized SIMPHONY solutions.

Custom Development and Manufacture

We are able to offer you a custom software development and hardware as well as hardware and custom manufacture. We have experience with large development or manufacture projects for customers in the area of ICT and other industries.

The field of our embedded software development, which is continually taking more than 20 years in TTC, deserves special attention here also.

More information on website: http://www.ttc-telekomunikace.cz/en/



Czech Rep. – Industrial Association Profile

CZECH SPACE ALLIANCE

About

The Czech Space Alliance (CSA) is an industrial association of, and for, the Czech space industry, with proven skills and track record in aerospace business and with broad international client base. The alliance was established in 2006 under the auspices of CzechTrade, the export promotion agency of the Ministry of Industry and Trade. During the process leading to the Czech accession to the ESA convention in 2008, it formalised its statutes and became registered as a legal entity. Its focus is on fostering successful participation of the members in competitive international space tenders, with major emphasis on ESA.

The alliance comprises 14 companies from a spectrum of technology disciplines and some 300 man years of experience in space projects.

Among the main goals are:

Internally — represent and promote the interests of the space industry to the national decision makers, the media and other relevant associations or entities; co-operate with the ministries and all other official entities supporting space activities in the formulation of space policy and creation of suitable conditions for the growth of the space industry.

Externally — present the skills of its members at international events and establish dialogue and relationship with similar associations and space agencies, be they in Europe or beyond; help its members to develop business relationship with potential partners in other European Space Agency members states and beyond.

More information on website: http://www.czechspace.eu