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28/03/2007



Italian Aerospace SMEs Association

## SINEQUANET WORKSHOP

# SINEQUANET as a NEW MODEL for COOPERATION IN SPACE : the ITALIAN SME VISION



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Italian Aerospace SMEs Association

The Association of Italian Small and Medium Aerospace Enterprises (AIPAS) was 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:

- ❖ promoting in the various national and international centres the general interests of Aerospace SMEs;
- ❖ tackling the fundamental problems of the Aerospace market also by elaborating, monitoring and observing activities on the field;
- ❖ promoting and examining the legislative, administrative, economical and financial provisions that are of interest of its Associates;
- ❖ promoting and organising collective participation in industrial and commercial fairs;
- ❖ encouraging companies to work together and create consortia;
- ❖ joining other national and international Associations or Agencies in the interest of its Associates



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Italian Aerospace SMEs Association

**AIPAS is represented by:**

**The President  
GIOVANNI SYLOS LABINI**

AIPAS headquarters are in Rome  
Via del Tempio 1, 00186.  
Tel/fax +39 06 6869222  
e-mail: [info@aipas.it](mailto:info@aipas.it)  
web-site: [www.aipas.it](http://www.aipas.it)

For further information please contact  
Silvia Ciccarelli  
(AIPAS External Relations)  
e-mail: [silvia.ciccarelli@aipas.it](mailto:silvia.ciccarelli@aipas.it)



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Italian Aerospace SMEs Association

Today the Association is composed by 29 associated companies, including:

- 4 CONSORTIA
- 1 SCIENTIFIC & TECHNOLOGIC PARK

Thus representing indirectly 50 Aerospace SMEs located all over Italy



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Italian Aerospace SMEs Association

## CURRENT AIPAS MEMBERS

ALTA SpA.....	Pisa
ALTA INDUSTRIES Srl.....	Florence
ARCHIMEDES LOGICA Srl.....	Rome
A-TECHNOLOGY SpA.....	Naples
ATM Srl.....	Naples
BLU ELECTRONIC Srl.....	Milan
CAEN SpA.....	Viareggio (Lucca)
C.A.M.A.....	Milan
CARLO GAVAZZI SPACE SpA.....	Milan
CLIO COM (Consortium, 3 SMEs).....	Lecce
FLYBY Srl.....	Livorno
I.D.E.A. (Consortium, 9 SMEs).....	Naples
Ingegneri Speranza Srl.....	Ascoli Piceno
INNOVA (Consortium, 3 SMEs).....	Matera
INTECS SpA.....	Rome

ISIS R&D Srl.....	Rome
MAB ELETTRONICA Srl.....	Milan
MAROTTA AT Srl.....	Naples
MERLINO SERVIZI Srl.....	Benevento
PLANETEK ITALIA Srl.....	Bari
SAB AEROSPACE Srl.....	Benevento
S.A.M. (Consortium, 13 SMEs).....	Naples
S.I.ME. Srl.....	Milan
SPACE ENGINEERING SpA.....	Rome
STM Snc.....	Modena
TECHNAPOLI (Technology Park).....	Naples
TECHNO SYSTEM DEV. Srl.....	Naples
TELEMATIC SOLUTIONS SpA.....	Milan
TOP REL Srl.....	Rome
UTRI Srl.....	Trieste



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## AIPAS GEOGRAPHY



AIPAS headquarters are in Rome  
Via del Tempio 1, 00186.  
Tel/fax +39 06 6869222  
e-mail: [info@aipas.it](mailto:info@aipas.it)  
web-site: [www.aipas.it](http://www.aipas.it)  
For further information please contact  
Silvia Ciccarelli  
(AIPAS External Relations)  
e-mail: [silvia.ciccarelli@aipas.it](mailto:silvia.ciccarelli@aipas.it)



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## A NEW MODEL OF COOPERATION IN SPACE: THE ITALIAN SMEs VISION

- Italian Space Industry evolution: SMEs not only subcontractors;
- A new scenary of industrial competition at a continentale scale;
- Aggregation as a possible strategy;
- New patterns of industrial cooperation in space;
- Sinequanet as an instrument of technological support for SMEs, but also as a facilitator of cooperation among SMEs, between SMEs and large companies, SMEs and Universities and Centres of research, SMEs and Space Agencies;
- The role of Associations



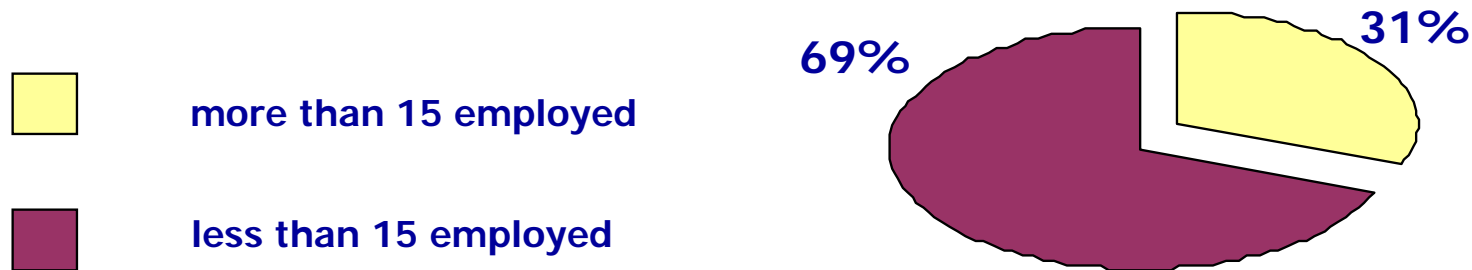
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## ITALIAN SPACE INDUSTRY EVOLUTION

Italy is for several areas a model (rather spontaneous) of SME driven industrial growth.

The Italian space industry (manufacturing and services) is made up of about 180 companies, the majority of which are SMEs.

Four large industries dominate the market (Alcatel Alenia Space, Telespazio, Avio and Galileo Avionica), all of which are part of the Finmeccanica holding.





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## ITALIAN SPACE INDUSTRY

- ❖ about 50% only services (83 companies)
- ❖ 29% only manufacture (46 companies).
- ❖ about 16% both services and manufacturing

Employment is concentrated in manufacturing activities: more than 63% of the total employment (creating about 66% of the turnover).  
(Source: ASI)

The total turnover of the Italian space industry is about 1,5 billion €

- 980 million € from manufacturing
- 520 million € from services



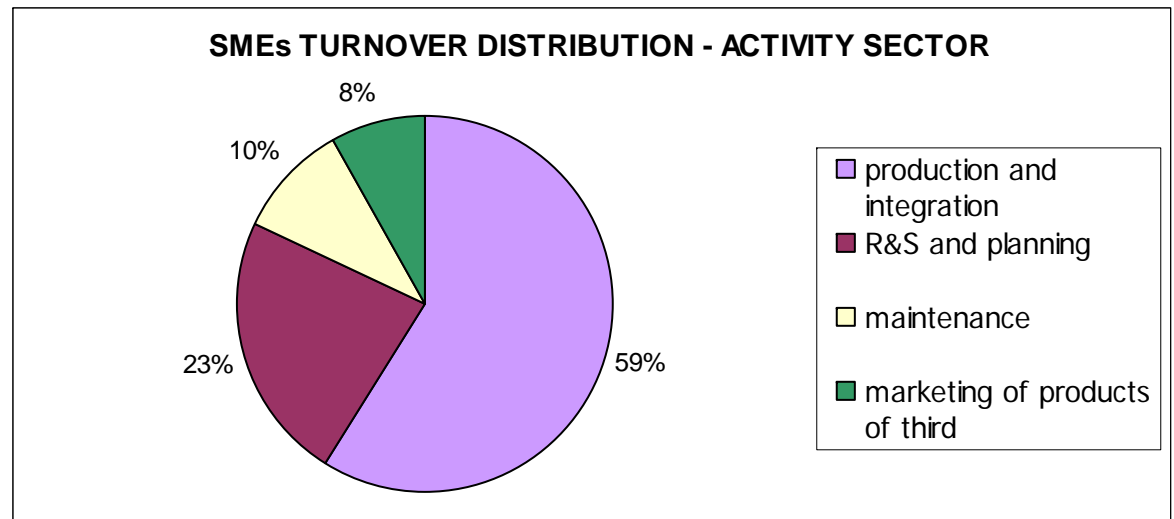
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## ITALIAN SPACE SMEs

Total turnover of the Italian space industry is about 1,5 billion €

- about 1 B€ from Alcatel Alenia Space, Telespazio, Avio and Galileo Avionica
- about 500 M€ from SMEs

The majority of SMEs operate in the service sector; the turnover is mainly concentrated in production and integration, followed by R&S and planning and maintenance.



Source: E.Saggese, Finmeccanica



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## ITALIAN SPACE SMEs

According to the estimate of AIPAS, in Italy there are about 100 Aerospace SMEs, with a total of about 2.500 employees and a cumulative turn over of 450 M€/year, that are highly specialized and that are able to invest in technology and innovation.

After the dramatic restructuring process undergone by the Italian SMEs during the 90s, work productivity of Aerospace SMEs is higher than the national average level of the Italian Aerospace industry.

The average turnover (per operator) in 2001 was:

187.000 euro for Aerospace SMEs,  
163.000 euro for the entire Aerospace sector.



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## ITALIAN SPACE INDUSTRY EVOLUTION: SMEs NOT ONLY SUBCONTRACTORS

A first element which is important to focus is SME flexibility. Flexibility should not be considered as a permeability tool to be used in case of over production, but rather a deep revision in the value chain, so as to get to a general sharing of the strategic objectives by the whole industrial system.

SMEs should be integrated in long term programs with a pre-assigned share that could facilitate the creation of niches of excellence at competitive costs.

Under this perspective SMEs could become suppliers of technology and advanced products, with the opportunity of profits from R&D costs thanks to an advanced management of intellectual property rights.



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## ITALIAN SPACE INDUSTRY EVOLUTION: SMEs NOT ONLY SUBCONTRACTORS

Another essential rationalization element is represented by the opportunity to support partnerships among Universities, Centres of Research and SMEs.

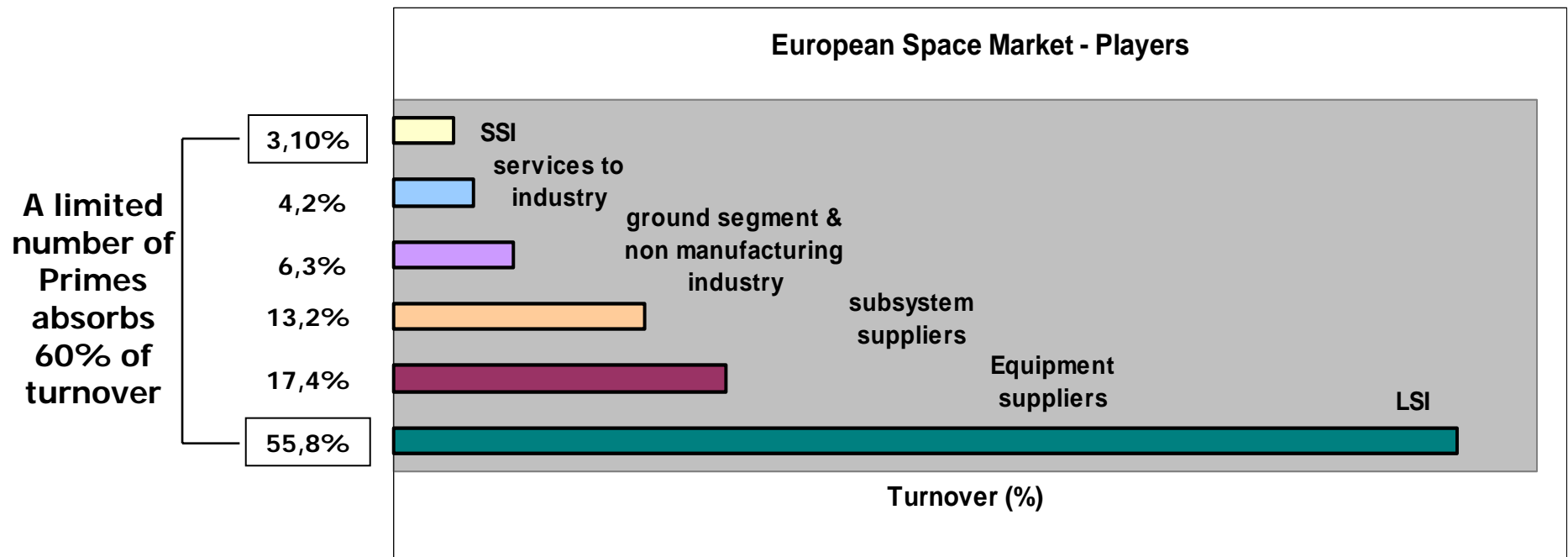
The small dimension, together with the industrial approach to costs and projects, make particularly effective the sharing of programs among these actors by means of consortia, joint projects or ventures.

This should not happen to the detriment of the big firms, but taking into account the effectiveness of the expenditure of the limited resources available and the creation of common agreement upon long term objectives.



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## A NEW SCENARIO OF INDUSTRIAL COMPETITION AT A CONTINENTALE SCALE



Source: elaboration on Eurospace data

## A NEW SCENARIO OF INDUSTRIAL COMPETITION AT A CONTINENTALE SCALE

Relevant capabilities remain in SMEs

Concentration causes the reorganization of the supply chain:

- it will simplify the supply network;
- restrictions on net investments in R&S

processes of industrial concentration aim at obtaining an efficiency vantage through a cost reduction, with possible negative effects over R&S investments



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## SINEQUANET - FEW INDICATIONS RESULTING FROM TECHNICAL REQUIREMENTS AND EXPERTS AVAILABILITY FROM AIPAS SMEs

### SMEs operating in EO:

What is the target market for the planned product for which you need expert support?

**Satellite ground stations  
Systems/services Downstream**

How will the expert support help the company's business?

**Project support  
It will help us to expand the  
business into new markets**

### STRONG NEED FOR TRAINING COURSES:

Which of the existing ESA Training Courses would help your company?

**Financing innovating projects  
Software engineering  
Writing a good proposal  
Innovation from R&D to business development**



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## SINEQUANET - FEW INDICATIONS RESULTING FROM TECHNICAL REQUIREMENTS AND EXPERTS AVAILABILITY FROM AIPAS SMEs

### OTHER INDICATIONS:

What is the target market for the planned product for which you need expert support?

Satellite bus  
Satellite payload

How will the expert support help the company's business?

It will help us to expand the business into new markets

### STRONG NEED FOR TRAINING COURSES:

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>Financing innovating projects</li> <li>Software engineering</li> <li>Writing a good proposal</li> <li>Innovation from R&amp;D</li> <li>Payload safety</li> </ul> | <ul style="list-style-type: none"> <li>Quality assurance</li> <li>Space structures</li> <li>Materials and processes</li> <li>Space components engineering</li> <li>Configuration management</li> </ul> |
|---|--|

Risk and security management both in project process and in final product is also required



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## SINEQUANET - FEW INDICATIONS RESULTING FROM TECHNICAL REQUIREMENTS AND EXPERTS AVAILABILITY FROM AIPAS SMEs

**OTHER INDICATIONS – there is also availability of experts among the AIPAS SMEs sample**

Indicate any space engineering processes for which you can offer expert support.

Requirements engineering  
Design and configuration  
Analysis  
Verification engineering

Which of the existing ESA Training Courses could you contribute to?

Financing innovating projects  
Space structures  
Writing a good proposal  
Space components engineering

Innovation from R&D  
Configuration management  
Payload safety



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## THE IMPORTANCE OF SMEs ASSOCIATIONS as an interface between SINEQUANET and SMEs

Thanks to the Associations single companies are able to act as a single voice, it is possible to favourite synergies by facilitating collaboration with players operating in other space sectors and to optimise the development of applications from synergistic technologies.

SMEs Associations would represent an effective tool for Sinequanet, able to facilitate the search for technology needs and the monitoring of experts availability.



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## THE IMPORTANCE OF SMEs ASSOCIATIONS as an interface between SINEQUANET and SMEs

### Generic Tasks for a Trade Association

Promote combined capabilities of SMEs	To communicate the benefits of space technologies and the capabilities of the service sector in Europe to new and existing vertical markets
To act as a Common Voice	To obtain and lobby for public development financing for developing the sector both for development of application and infrastructure. To voice industry's major concerns about access to data and continuity of such access in the future.
To establish Synergies	Establish links to parties among different space segments and complementary players To establish new types of business models to trigger demand



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## THE IMPORTANCE OF SMEs ASSOCIATIONS as an interface between SINEQUANET and SMEs

Only a few countries have a national Aerospace SMEs representation body, e.g. Italy, UK, Germany and Portugal.

The main benefit mentioned is networking, although there are many other immeasurable and intangible benefits.



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# THE IMPORTANCE OF SMEs ASSOCIATIONS as an interface between SINEQUANET and SMEs

## 'Wish' list for a Trade Association

- Professional lobbying to facilitate influence of future programmes to serve the interests of its members in a neutral and fair manner
- To facilitate Networking
- Market intelligence/market studies
- Export facilitation/support
- Communication on what is going on



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## THE IMPORTANCE OF SMEs ASSOCIATIONS as an interface between SINEQUANET and SMEs

A recent study supported by ESA showed that for space SMEs one of the most important elements concerning Associations is that:

They should be not only a voice for the large companies and should not be driven just to serve the aim of the big players. The large companies have too much influence; perhaps they could be included, but only with less relevance than SMEs. Large companies could be included in SMEs Associations with the aim of facilitating cooperation between big players and small one.



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## AIPAS GOVERNANCE

In order to make SMEs and large companies cooperation stronger AIPAS introduced the opportunity for large companies to be part of the Association. This provides the conditions to get in close contact with SMEs.

Large companies own voting right but, as AIPAS first objective is to safeguard the interests of SMEs, the mechanism of voting guarantees stronger relevance to small companies.

In addition the Board of Directors must represent for the majority the Associated SMEs and must include at least one representative from micro-enterprises.



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