SUPPORTED BY: SKYSPARK REGIONE PIEMONTE ENVIRONMENT PARK **Oligi**Sku Home Challenge Aircraft Sponsor Team FAQs Contact us June 12, 2009 250km/h New World Record! CINCAAAII Sito in Italiano SkySpark Challenge SkySpark - first ele... SkySpark Challenge is the name of the project coordinated by DigiSky; an engineering company specialized in R&D (Research & Development) innovative technology for aeronautical applications. The goal of the SkySpark project is to design and build a complete "ecological" aircraft. It is a unique project as it sums 3 main competitive factors: · Highly innovative from a technological point of view Totally "EcoCompatible"

Commercially very attractive

It is based on technologies at the forefront of today's research and of great interest for the future:

- Hydrogen Fuel Cells and stocking systems
- Lithium Polymers batteries
- Electrical Engine brushless

According to recent surveys, by 2020 the fuel consumption in aeronautics will increase of 250%. Considering the faster growth of the industrialization process and so the huge emissions produced every year, we can rely on sustainable energy sources.

For example, the air freight produces million tons of CO2 and it is partly responsible for emissions that cause the greenhouse effect. Also the European Community is working for this problem and wants to reduce the CO2 and NOx discharge for passenger, because in the next years the real issue could be the holding by the Kyoto Protocol (2012).

In detail, the project combines the academic capabilities of the Polytechnic of Turin and the technical exper-tise of highly dynamic SME's.

SkySpark is coordinated by DigiSky, and therefore the company can take advantage of the Polytechnic of Turin and the fundamental contribution of Environment Park.

Furthermore the team can rely on partners as:

- SICME Motori
- CFM Air
- Aircraft Studio Design
- REM
- SG Fly Evolution
- Sparco

The project enjoys the presence of a prestigious Team Leader, Mr. Maurizio Cheli (Lieutenant Colonel, Ital-ian Air Force, Astronaut for the European Space Agency and Chief Test Pilot of Eurofighter Typhoon).

Who flew with the SkySpark, establishing the World Speed Record for a 100% electrically powered aircraft during the World Air Games in Turin in June this year. He reached a top speed of 250 km/h. This successful flight is only an intermediate step of the program because the team will now focus on the next goal: the hy-drogen fuel cells powered engine by the middle of 2010.

Hydrogen is certainly the ideal element because of its energy capacity and environmental compatibility. Electrical engines have already overtaken internal combustion engines both for efficiency and dimensions and the strong point they have today is the very high degree of reliability and long life.

So, if we try to focus on the future situation of the market, recent surveys considered that:

- From 2010 to 2015 there will be an opening of markets of stationary, niche and portable devices ap-plications, and until 2020 the production will be from fossil fuels primarily.
- · Then from 2015 to 2020 the market will take-off in the transport field and we'll have mass markets. · Finally in 2050 the hydrogen produced from sustainable sources will have a greater important role
- in the energy production.

The development of the hydrogen technology and its market are strongly connected to the technology evolu-tion in the different areas of the weaving factory. Nowadays these developments are already permitting the spread of the know-how and new opportunities with regard to components production. So a stronger technology development for fuel cells could reduce costs, increase the efficiency, guarantee the duration and the reliability, creating the requirements for a large scale usage, also by pilot projects in the dif-ferent fields.

Then, if we try to give some figures to the SkySpark project, we could declare that it has a value more or less of 310.000 €, considering the costs of the project management (35.000 €), the materials (180.000 €), human resources and so the R&D (70.000 €), and the logistics (25.000 €).

In the end, we trust in the SkySpark as a dream that can become reality and are the base point for "green" air freight.

#### Because...

On 20 July 1969, Neil Armstrong, Commander of Apollo 11, putting his foot on the Lunar surface, he

"One small step for man, one giant leap for mankind"

We believe that the great leaps of mankind can truly be built by small steps.



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#### Frequently Asked Questions

#### Q What is SkySpark?

A The goal of the SkySpark project is to design and build a complete "ecological" aircraft. All systems will be entirely electrically powered in order to set a new world record (the aircraft will fly over 500 km at an average speed of 300 km/h).

It is a unique project as it sums 3 main competitive factors:

- Highly innovative from a technological point of view
- Totally "eco-compatible"
- Commercially very attractive

It is based on technologies at the forefront of today's research and of great interest in the future:

- Hydrogen Fuel Cells and stocking systems
- Lithium Polymers batteries
- Electrical engine brushless

#### Q Who?

A The SkySpark is coordinated by DigiSky, an engineering company specialized in R&D innovative technology for aeronautical applications. Team leader is Maurizio Cheli, astronaut and experimental test pilot (the only italian with the qualification of Flight Engineer on the Space Shuttle). His flight experience includes more than 3000 flying hours in over 50 different types of fixed wing aircraft and helicopters and a 377 hours flight in the space on the STS 75 Shuttle mission.

#### Q Where and When?

A Launched in late 2007, the project is now in the technological components test phase; when completed, the Team will start the setting of the airplane and the first tests. The official presentation of the record plane will take place during the World Air Games 2009 (Torino, june 09). The record attempt is planned for autumn 09.

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Maurizio Cheli Paolo Pari Oliviero Vigna Suria email: info@skyspark.eu

#### **Sponsor Contact**

#### TECHNE

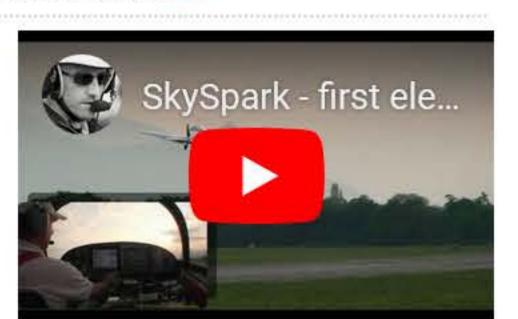
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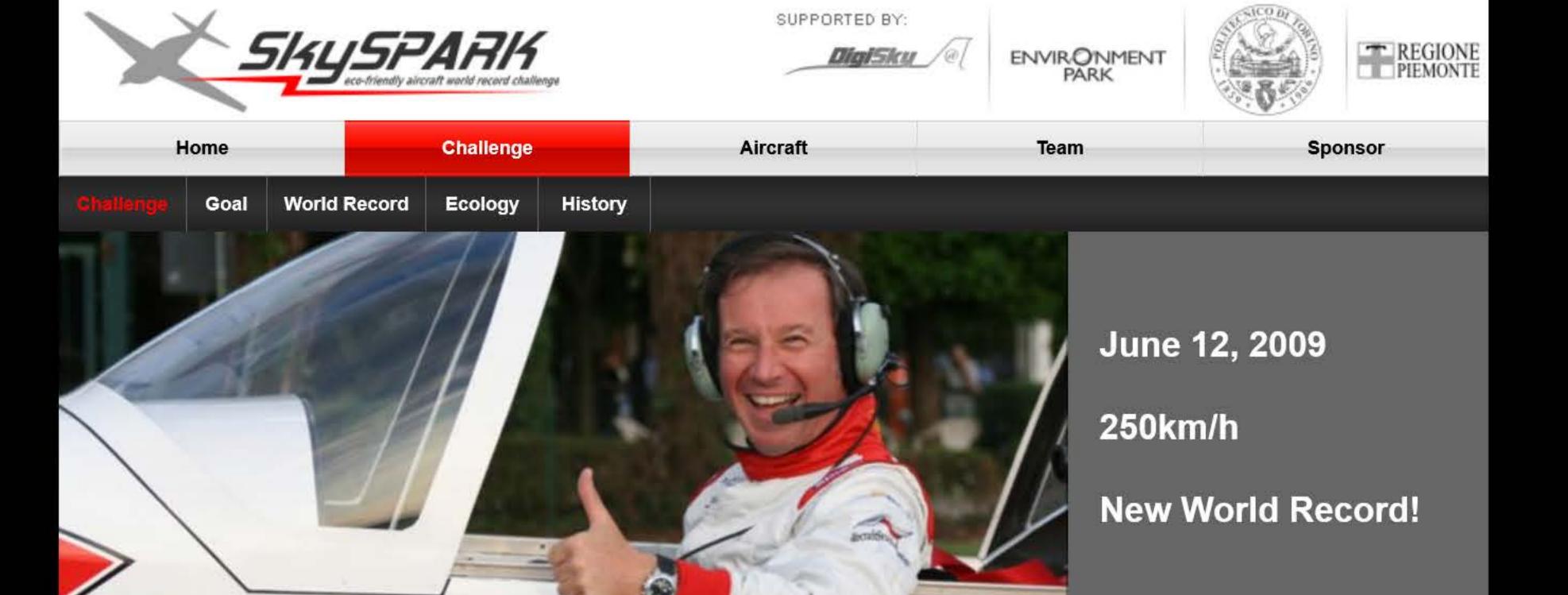
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#### Challenge

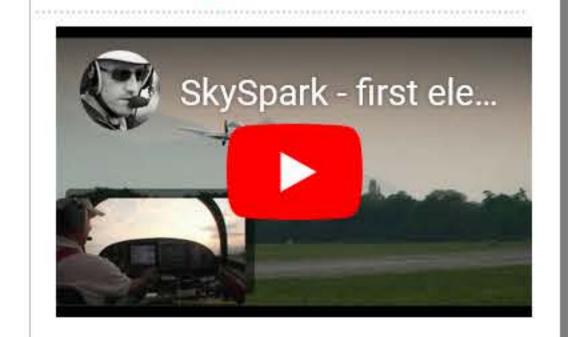
CINCARIU

#### To set a world record with an entirely electrically powered aircraft

Design and build a high performance, electrically powered light aircraft able to:

- Set a world speed record for the category (initial computations set 300 Km/h)
  Offer high media returns in the press and on TV both during the development phase and during the games. There is a concrete possibility to create a special event within the games.
  Offer ample space and visibility to a sponsor by combining the technological innovation and the
- sports components.

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#### Goal

#### Innovation and Passion

The goal of the SkySpark project is to design and build a complete "ecological" aircraft. All systems will be entirely electrically powered in order to set a new world record (the aircraft will fly over 500 km at an average speed of 300 km/h).

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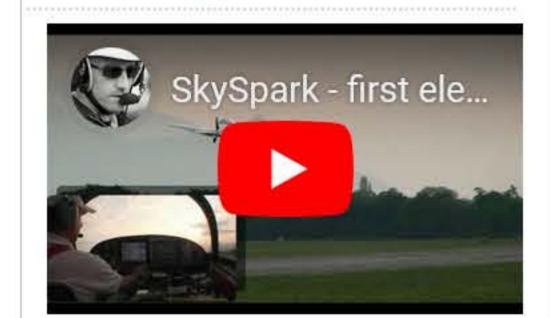
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Commercially very attractive.

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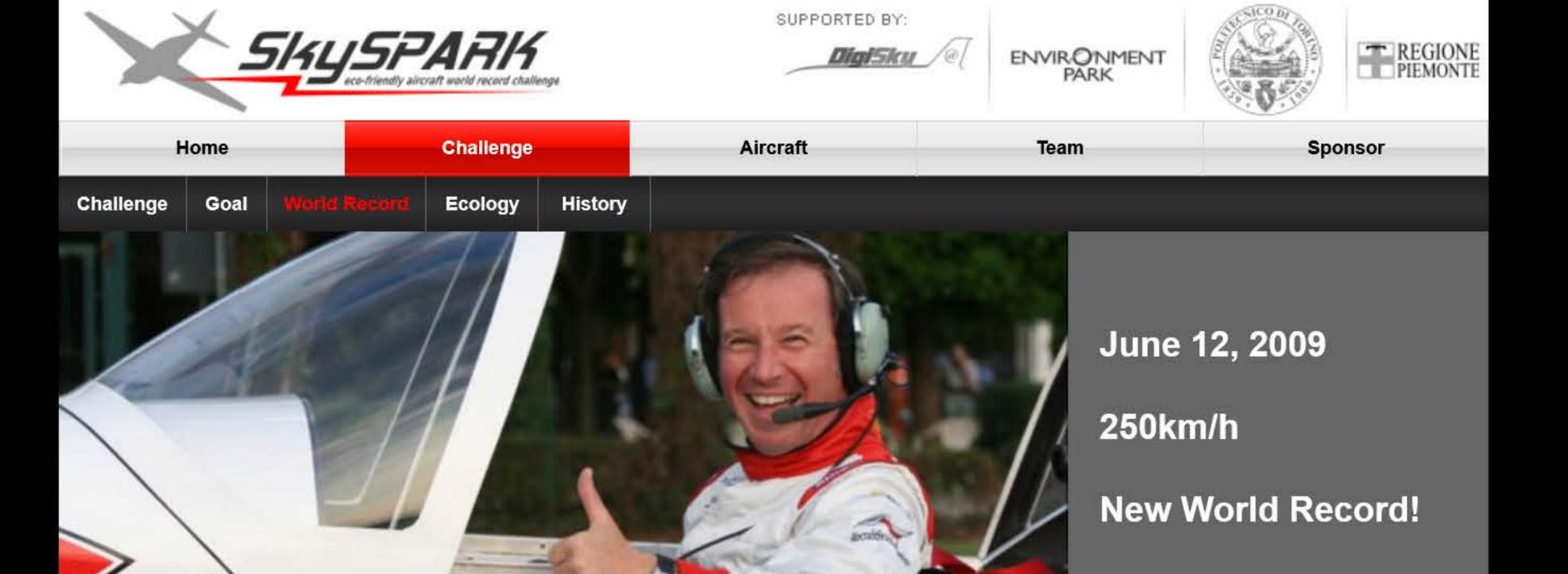
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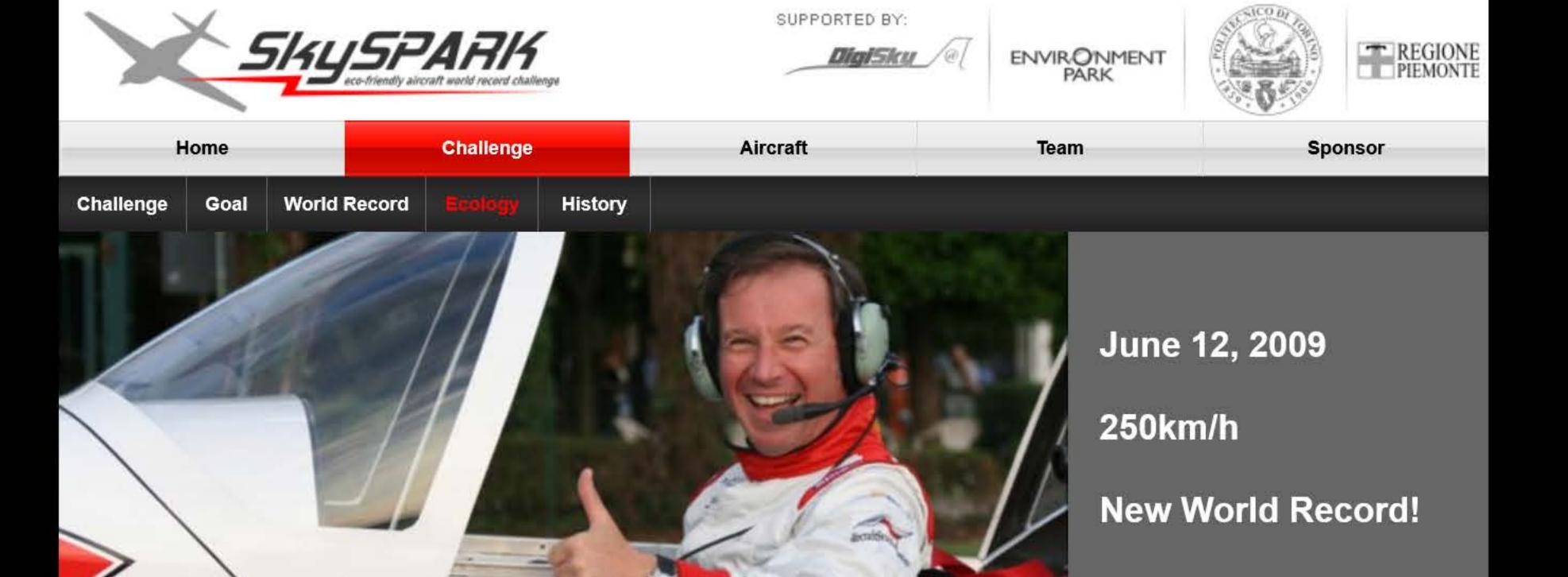
#### World Record

#### Speed and Endurance

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Set a world speed record for an high performance, electrically powered light aircraft during the World Air Games (initial computations set 300 Km/h as an attainable figure). Record to be homologated by the World Air Sports Federation. (FAI).





#### **Ecology**

#### The Background

CILLATION

On earth 15% of population now utilize 60% of energy and 50% of available sources. Around 85% of earth polutation is entering, on different levels, an industrialization process. Every year 25 billion of emissions are produced. This represents the most impressive uncontrolled scientific experience carried out by mankind.

To guaranty a safe future for the growing generations, we have to develop renewable energy sources. Air transportation produces 600 million tons CO2 and is responsible for 10% of emissions. According to the most recent surveys, energy requirements for air transportation will raise by 250% by 2020.

The evolution of stocking systems for electrical power has recently been accelerated by the huge demand for electronics consumer goods which has led to the availability of batteries characterized by a very high capacity per unit weight.

In addition the search for ecological solutions for the production of chemical energy has highly stimulated scientific research in the fuel cell sector which finds in hydrogen the ideal element because of energy capacity and environmental compatibility.

Electrical motors have already surpassed internal combustion engines both for efficiency and dimensions. They have today a very high degree of reliability and long life thanks to modern brushless technologies.

Electronic control systems allow today to modulate RPM and torque with dynamics which are far beyond what it is attainable in reciprocating engines.

These boundary conditions represent the ideal condition to initiate applied research projects finalized to develop electrical propulsion systems.

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#### History

#### The History of a Challenge

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The SkySpark challenge started matching the project developments of the DigiSky company and of the group of engineers of the Department of Aeronautical and Spatial Engineering of the Polytechnic in Turin (DIASP), coordinated by the Prof. Paolo Maggiore.

DigiSky is a startup company specialized in R&D innovative technology for aeronautical applications, born from the passion of the two partners Maurizio Cheli and Paolo Pari who decided to turn into business in the lightweight aircraft category the experience matured in many years. The opportunity offered by the new regulation to also use innovative technologies without qualification of the general aviation opens new interesting research areas.

The new DigiSky R&D headquarter, set up early 2007, is located within the Turin Polytechnics University I3P center for innovative companies. DigiSky has been selected by an evaluation committee to be part of this companies/university development programme, giving the opportunity to accelerate new projects. Parallelly to the planning and production of a new EFIS system (Electronic Flight Information System) installed on lightweight aircraft with both fixed and rotating wings, the partners structured an innovative service of qualification and testing of equipments which needed also the inflight experimentation, using some of their own aircrafts. This service has been then supplied to private and public corporate bodies receiving a great interest from the DIASP (Department of Space Engineering) research group who experimented for now some years aerospace applications of hydrogen fuel cells. Prof. Paolo Maggiore (backed by searchers Raffaella Gerboni, Paolo Bois, Sergio Pullara, Massimo Bruno and Michele Cotza and supported by Environment Park) started the research activities in order to conceive and experiment innovative units capable to generate electricity, with high output, designed to be used on board small and middle size aircrafts, allowing a reduction of polluting emissions and noises.

The programme has benefited of Ricerca Scientifica 2004 financing support from the Piedmont Region allowing the construction of two test benches. The opportunity to test the fuel cells during an experimental flight at the final stage of the project has given to the DIASP the possibility to order to Digisky a first campaign on aircraft with qualification in different flight conditions. The test programme has been implemented during 2007 with flight tests with on board PEM type fuel cells with a power of 100 W and 800 W at a maximum altitude of 5000 m. After this first positive phase, taking benefit of a new financing support linked to the SISA-COREP project, an APU generator able to supply the energy to the on-board DC-bus (from the switch on of the propeller) was engineered for the Pelican GS aircraft. It was the very first experiment of this type in Italy. The experiment and the final results were monitored by the media.

The DIASP research programme continued, planning up to 60 kw powered fuel cells tests. It became necessary to prepare test bench in order to qualify such fuel cells. This is the stage where Maurizio Cheli proposed the idea to use, always on the class of aircraft ULM, the power generated by fuel cells for electric propeller energized in a position to ensure the traction needed for the flight. In this context was developed a feasibility study to assess the compatibility of equipment with the capacity of an airplane class ULM and the power required for a safe takeoff. The feasibility study gave positive outcome, however, highlighting the high cost of purchasing equipment and special airplane for the role of platform technology: the group envisaged to set up a project with the formula of "challenge", acquiring the resources needed through sponsorship. It became indispensable to form a team setting objectives and timing of the challenge.

The idea of the project was submitted to the Chancellor of the Polytechnic University who welcomed it with enthusiasm by proposing the establishment of an interdepartmental framework agreement involving not only the DIASP but also the departments of electrical, computer / automatic production systems. The researcher in the Department of Electrical Engineering (DELET), Paolo Guglielmi, already involved with his team in projects for the development of electrical ground vehicle, proposed to design an innovative electric generator capable of supplying a specific power of over 2kW/kg.

While the agreement between DigiSky and the Polytechnic was approved, Alberto Sola, chairman of SICME Motors, enthusiastically confirmed to be the first sponsor of the challenge, taking on the commitment to implement the electric engine designed by the DELET.

To develop the communication plan and marketing DigiSky asked Aircraft Design Studio, one of the most quoted design company, specialized exclusively in aviation, to study the logo, the website and the framework of the aircraft.

After a careful evaluation of lightweight aircraft available on the market, the Pioneer 300 was identified as the best solution. Alpi Aviation, a leader in the lightweight aircraft, was then contacted and asked to join the team: the company owner confirmed his decision to supply an special airplane.

In March 2007, thanks to the involvement of Techne (a company specialized in communication), the team set out in detail the goal of the challenge by identifying the type of required sponsors.

The first response was given by Reale Mutua Assicurazioni that signed an agreement for sponsorship by ensuring both a financial contribution and insurance of all operations on the ground and in flight.

In 2008, the Board of Environment Park, informed of the project, proposed to include DigiSky into development projects linked to hydrogen and fuel cells. DigiSky as partner in the project HySyVision allowed a further contribution to the development of electronic control system of hydrogen fuel cell that was completed in June of the following year.

In December '08 Maurizio Cheli considered mature the whole program of the challenge, convened a press conference to present the project and collect more resources.

The conference was set for January 28, 2009.

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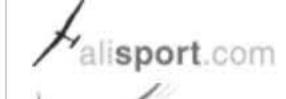


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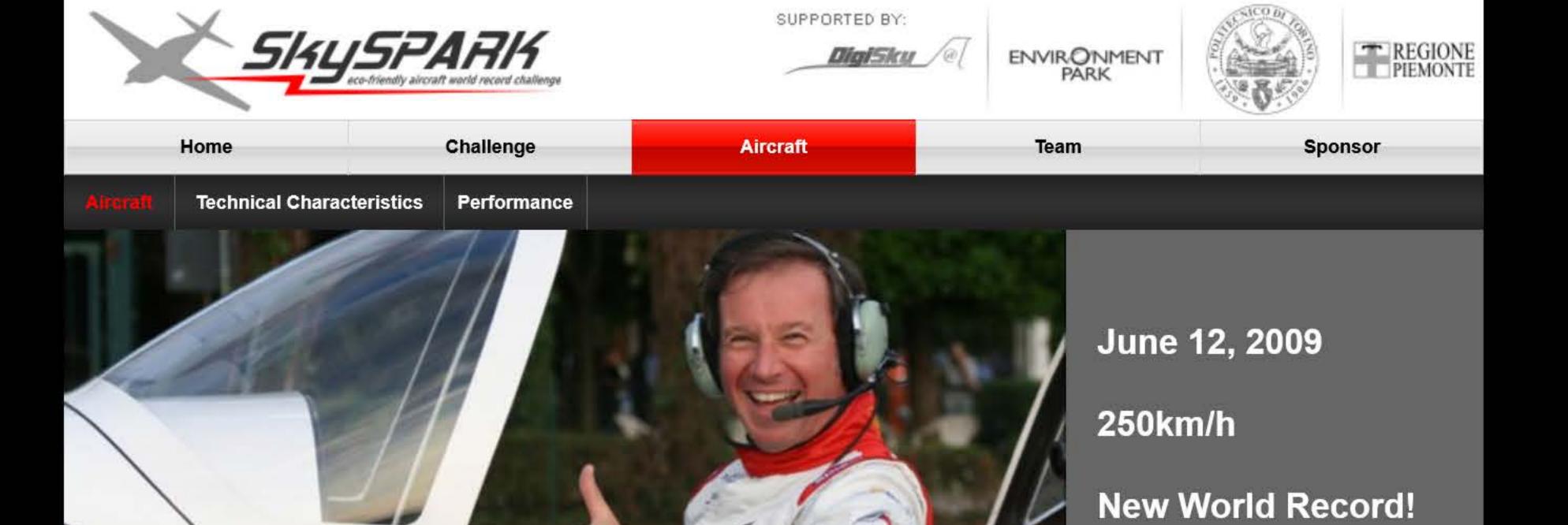
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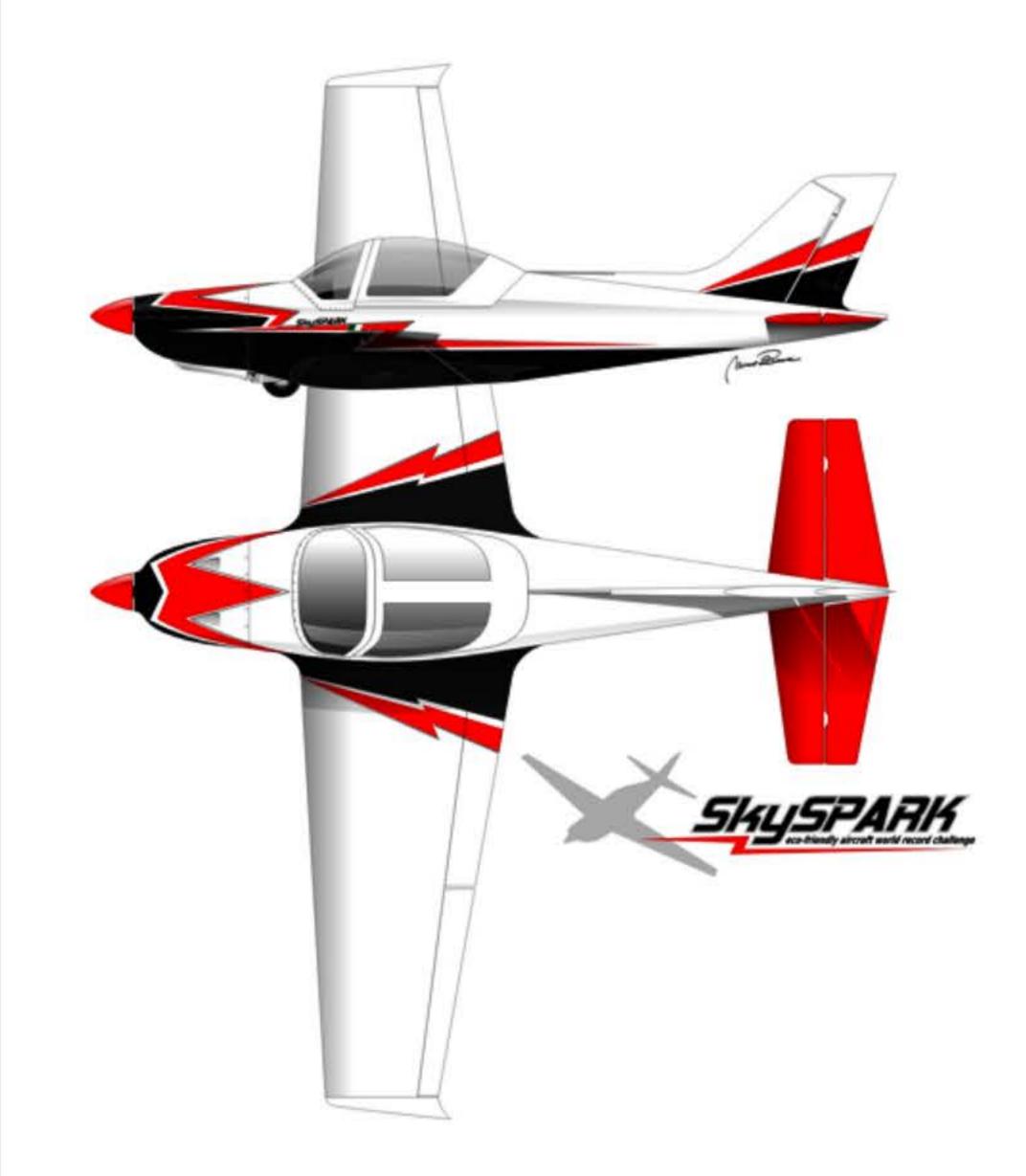
#### Aircraft

#### 100% eco-friendly

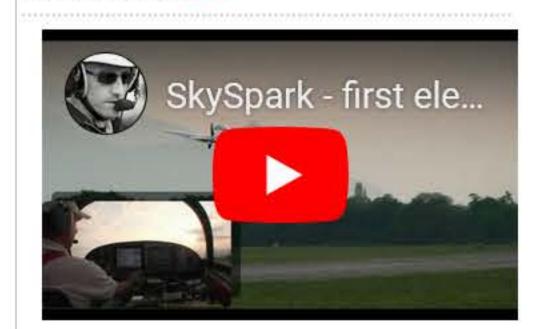
CINCARANI

The airplane is powered by an electrical motor which has already surpassed internal combustion engines both for efficiency and dimensions. It has today a very high degree of reliability and long life thanks to modern brushless technologies. Electronic control systems allow today to modulate RPM and torque with dynamics which are far beyond what it is attainable in reciprocating engines.

SkySpark is a dream that can become reality and set the pace for new challenges in air transportation field



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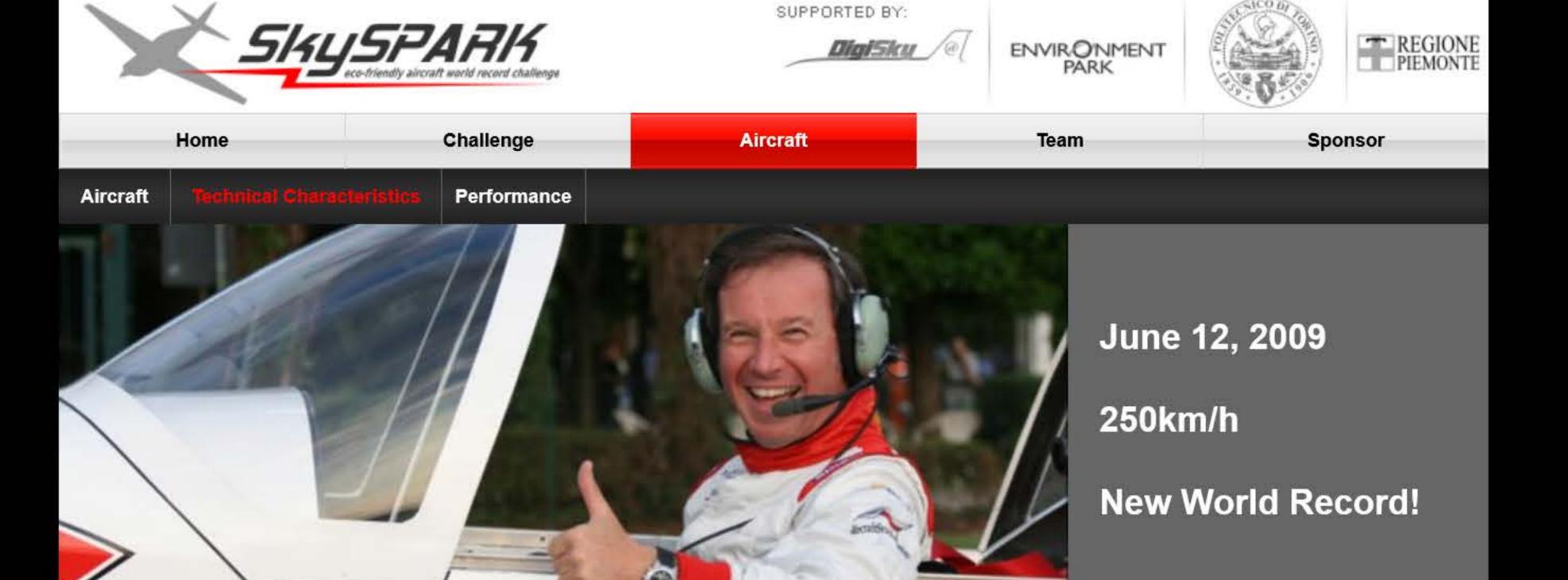


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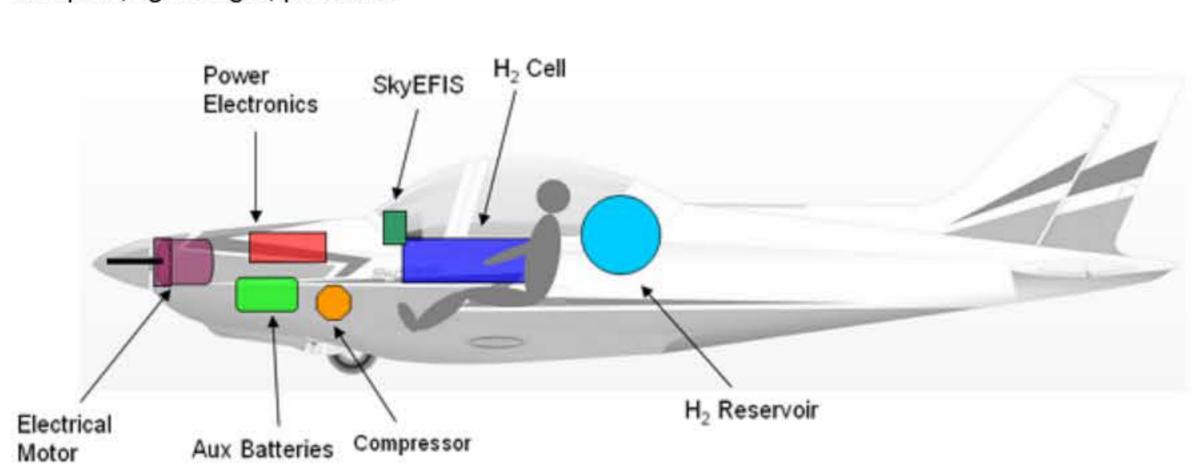
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#### **Technical Characteristics**

CINCAAAII

#### Compact, lightweight, powerful.



#### System Composition

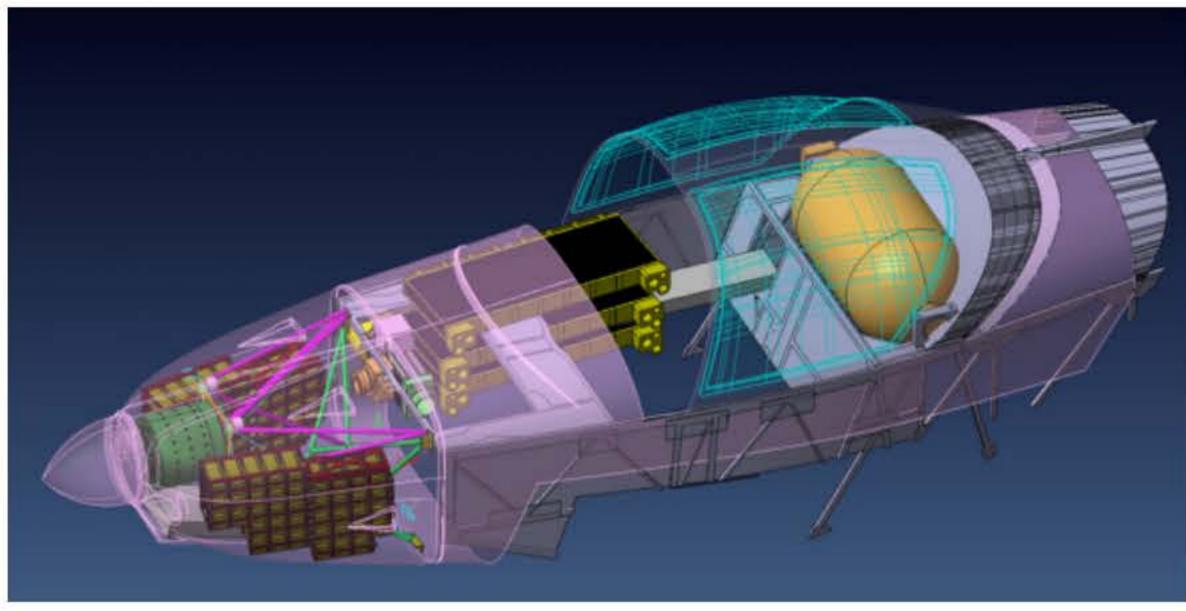
Motor Electronics (Inverter + DC/DC)
Aux Lithium Battery
Hydrogen fuel cell
H<sub>2</sub> line and valve Compressor H<sub>2</sub> reservoir

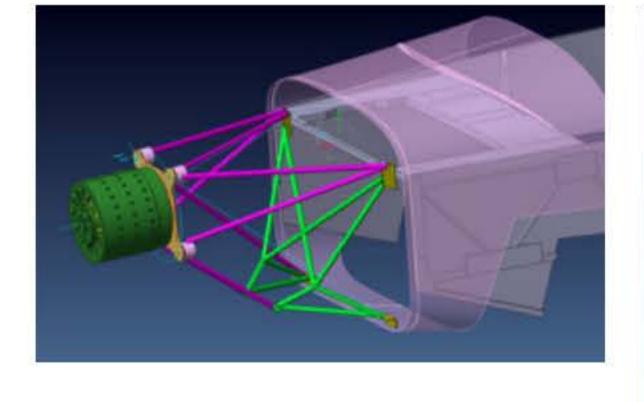
#### Power/Capacity

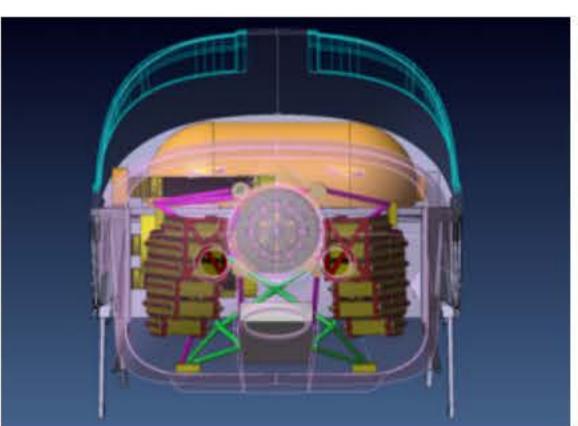
(65kWe) (75kWe) (7,5kWhe) (60kWe)

(12kWmax) (75l x 350atm)

#### Systems Layout

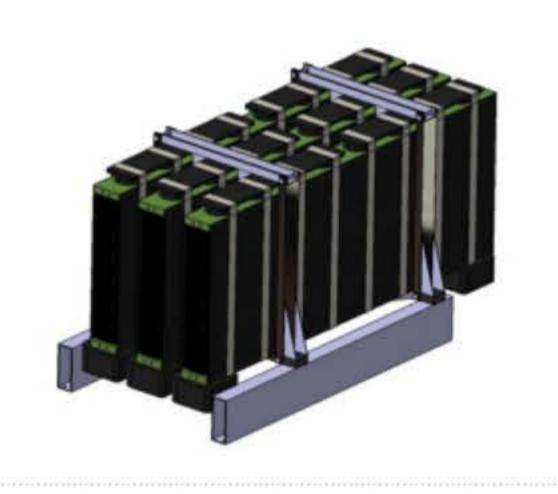






### Hi Performance PEM Fuel Cells

- 60kW Total Power
- More than 1kW/kg Power Density Special Pneumatic circuit for Altitude Compensation
- Avionics Integrated Cooling System



### Hi Pressure Hydrogen Reservoir

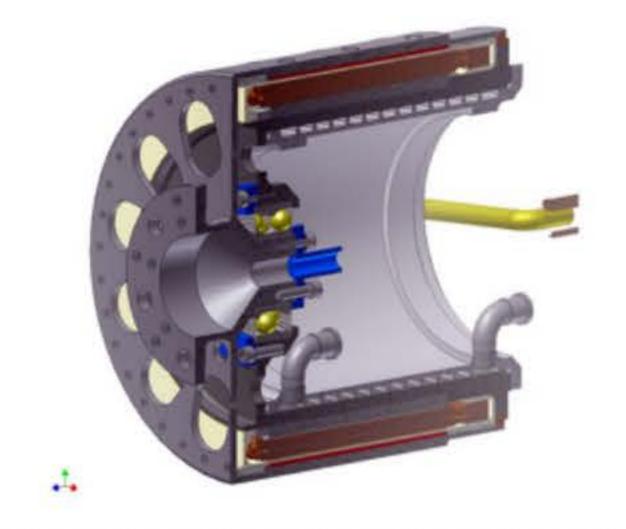
- 22.000 liters (normal) capacity350 Bar Pressure Storage



### Innovative Electric Motor

- Brushless Technology
- Power Density > 2kW/kg
  Ultra Compact Dimensions
- Liquid Cooled
  Propeller Direct Drive Coupling

# Manufactured by: SICMEMOTORI WIND OF INNOVATION



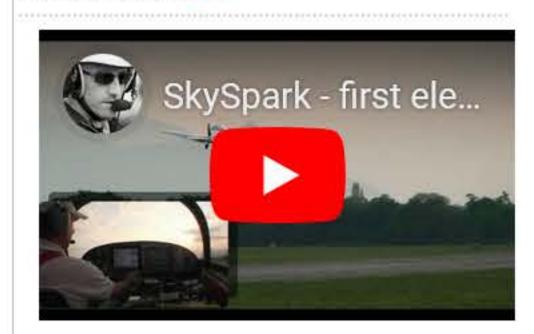
### Electronic Flight Information System

- Full Custom Fully Integrated
- Fuel Cells Auto Monitoring





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aircraftStudio design Alph Arthulon

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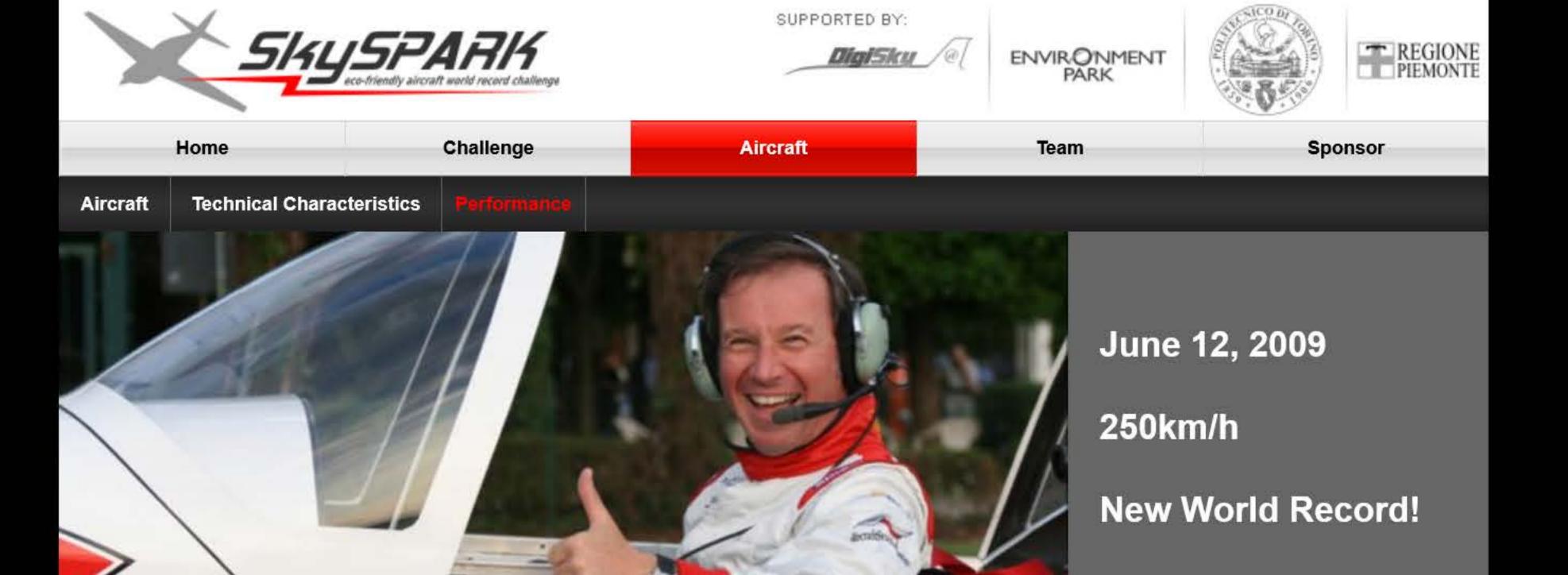


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#### Performance

#### Ecology and Performance: a possible challenge.

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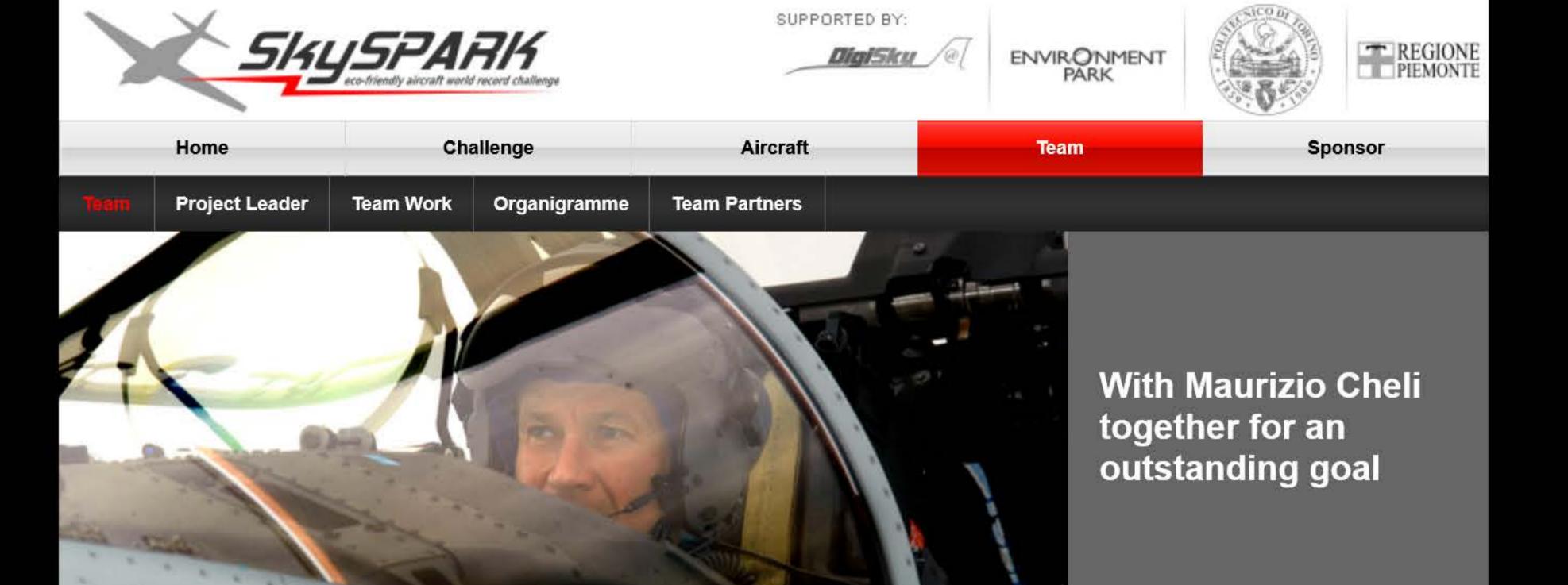
The project has already undergone the first feasibility phase and has entered the second phase with the construction of the intermediate technological demonstrator.

From the initial phase the following main aircraft performances characteristics have been identified:

- Max Endurance: in excess of 2 flying hours without refueling. (approximately 500 Kms. at cruise speed).
- Max Speed: in excess of 300 Km/h.

The above mentioned flight performances allow a very high degree of confidence that the final goal will be reached.





#### Team

#### Together to reach a exceptional goal.

the idea was developed to propose a highly innovative project that would work as a catalyst and technological showcase by combining the academic capabilities of the Turin Polytechnic University with the technical expertise of several highly dynamic SME's. The team comprises approximately 25 people including several university students.

# SkySpark - first ele...

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With Maurizio Cheli together for an outstanding goal

#### **Project Leader**

Maurizio Cheli: aeronautics as a passion.

Team leader is Maurizio Cheli: Maurizio Cheli (Lieutenant Colonel, Italian Air Force, Ret.) Astronaut, European Space Agency

**EDUCATION:** Graduated from Liceo Classico "M. Minghetti" in Bologna in 1978, from the Italian Air Force Academy in 1982, from the Italian Air Force War College in 1987 and from the Empire Test Pilot School in 1988. He studied geophysics at the University of Rome in 1989 received a Master of Science in Aerospace Engineering from the University of Houston.

**EXPERIENCE:** After graduation from the Italian Air Force Academy, Cheli underwent pilot training at Vance Air Force Base, Oklahoma, in 1982-1983. Following fighter lead-in training at Holloman Air Force Base, New Mexico and initial training in the F-104G in Italy, he joined the 28th Squadron, 3rd Recce Wing in 1984.

In 1987, he attended the Italian Air Force War College and in 1988 he graduated from the Empire Test Pilot's School, Boscombe Down, United Kingdom.

While assigned to the Italian Air Force Flight Test Center in Pratica di Mare, Rome, he served as a Tornado and B-707 Tanker project pilot on a variety of test programs and as display pilot.

His flight experience includes more than 3000 flying hours in over 50 different types of fixed wing aircraft and helicopters.

In June 1992, he was selected by the European Space Agency as a member of the second group of European astronauts. Cheli reported to the Johnson Space Center in August 1992.

He completed one year of training in August 1993, and was qualified for assignment as a mission specialist on future Space Shuttle flight crews.

His technical assignments included: flight software verification in the Shuttle Avionics Integration

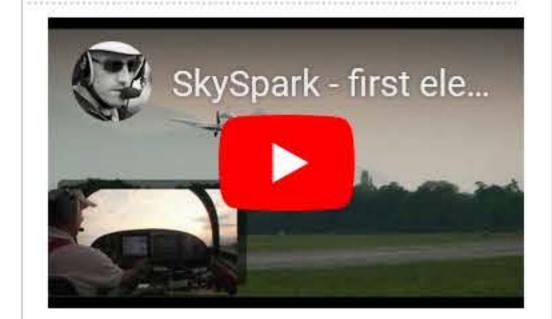
Laboratory (SAIL); remote manipulator system/robotics; crew equipment.

He flew on STS-75 in 1996 and has logged over 377 hours in space. Maurizio Cheli left the Agency on June 30, 1996.

Cheli joined Alenia as test pilot to work on the Eurofighter programme.

**SPACE FLIGHT EXPERIENCE:** Cheli was a mission specialist on the crew of STS-75. The mission was completed in 252 orbits covering 6.5 million miles in 377 hours and 40 minutes.

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Team Project Leader Team Work Organigramme Team Partners

With Maurizio Cheli together for an outstanding goal

#### **Team Work**

#### A private companies, university and public administration collaboration.

The SkySpark is coordinated by DigiSky, an engineering company specialized in R&D innovative technology for aeronautical applications.

#### DigiSky

#### [ www.digisky.it ]

Digisky is the group leader company who has conceived the project and follows up the coordination. Specialized in the planning and production of avionics advanced systems and integrated on board equipments. Besides the Project & Construction Management, Digisky supplies the EFIS system (Electronic Flight Information System) dedicated to the aircraft and the on board electronic automation systems.

#### Politecnico di Torino

#### [ www.polito.it ]

The new DigiSky R&D headquarter is located within the Turin Polytechnics University I3P center for innovative companies. DigiSky has been selected by an evaluation comittee to be part of this companies/university development programme, giving the opportunity to accelerate new projects. DigiSky can therefore take advantage of the university ressources such as:

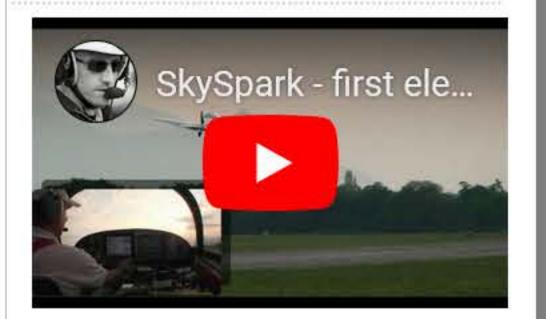
- Department of Space Engineering (DIASP)
- Department of Electrical Engneering (DELET)
- Department of System Production and Company Economics (DISPEA)
- Department of Automation and Computer Engineering (DAUIN)
- Department of Energetic Engineering (DENER)

#### **Environment Park**

#### [ www.envipark.com ]

Svolge le attività di bench-marking tecnologico per la selezione di componenti ed apparati innovativi, gestisce le prove a banco del gruppo cella con relativi sistemi di stoccaggio; garantisce l'approvvigionamento dell'idrogeno per la sperimentazione.

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#### Organigramme

Project Leader: Maurizio Cheli

Project Manager: Paolo Pari

Staff:

Stefano Bonelli Chiara Giordano

Scientific Director: Paolo Maggiore

Hydrogen Team: Paolo Maggiore

Alessandro Graizzaro Paolo Bois Massimo Bruno Oliviero Vigna Suria

Michele Cotza Lorenzo Pace

**Electric Team:** Paolo Guglielmi

Eric Armando Roberto Lamberti Franco Gadrino Diego Artioli Collaborators:

Giovanni Lanzetti

Avionic Team: **Paolo Pari** 

Claudio Ricco Enrico Rocco Matteo Sonza Reorda Massimo Violante

Collaborators:

Stefano Bonelli Davide Ferreri Piergiorgio Bosio Roberto Garassino

Airfame Team:

Marco Martilla Raffaele Lugli Renato Cottica

Collaborators: Romano de Paola

Marco Tosetti Maurizio Palmisano

Marketing & Sponsor

Management:

Website Team:

**Fabrice Boyer** 

Press Office : Simonetta Carbone

Mirco Pecorari Team Designer:

Tiziano Ferrari Monica Muzzarelli Mirco Pecorari

Multimedia Team: Stefano Risatti Claudia Vassallo

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Cover Technology

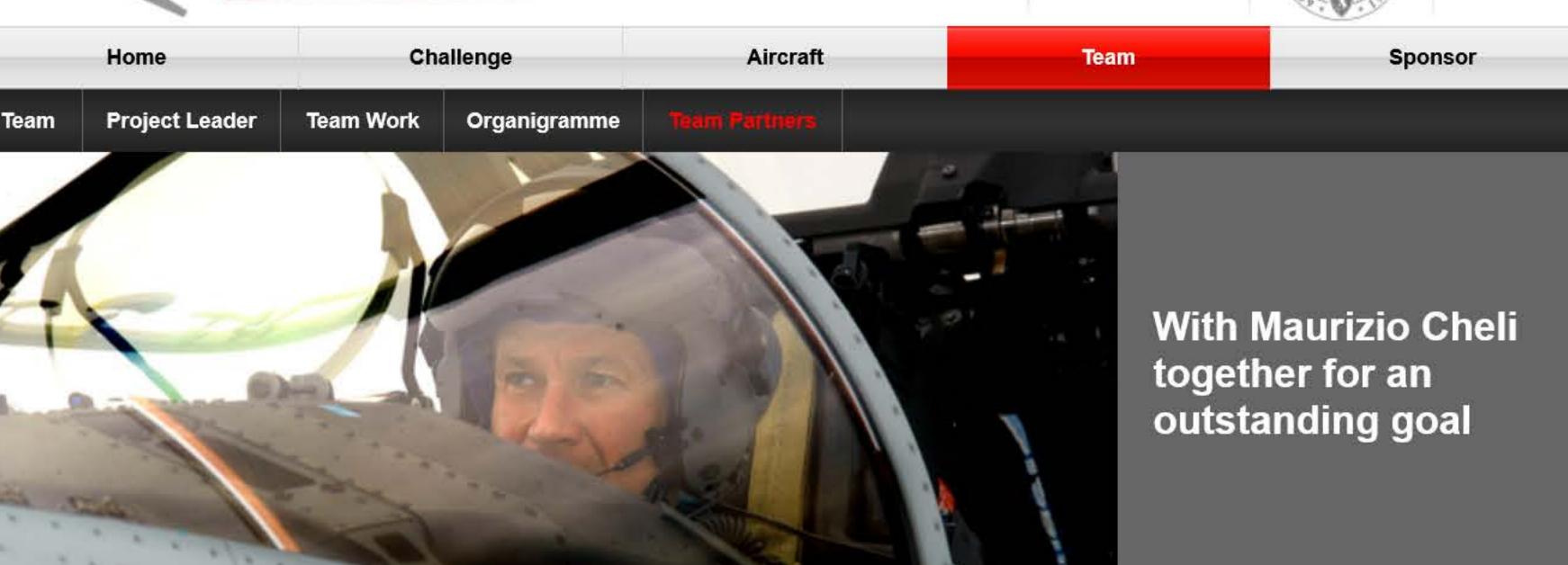
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#### **Team Partners**

#### Official Sponsor.

#### Reale Mutua Assicurazioni

[ www.realemutua.it ]

Reale Mutua Assicurazioni, leading insurance company, is official sponsor of the project and offers dedicated insurance coverage

#### **Banca Fideuram**

[ www.bancafideuram.it ]

Professionals in Private Banking.

#### Technical Sponsor.

#### AircraftStudioDesign

[ www.www.aircraftstudiodesign.com ]

Aircraft Studio Design offers comprehensive service and solutions to enhance aviation products. The company is in charge of the aircraft design as well as the project corporate identity including the web

#### Alisport

[ www.alisport.com

Alisport Srl is comprised of three aviation divisions (sailplanes, STOL aircraft, and propellers/ accessories) that operate in shared facilities.

#### Alpi Aviation

[ www.alpiaviation.coms ]

Alpi Aviation build ultra lightweight and performing aircrafts. Alpi Aviation is supplier of the project with a Pioneer 300.

#### **Altair Engineering**

[ www.altairengineering.it

A leading global provider of technology that strengthens client innovation Altair empowers client innovation and decision-making through technology that optimizes the analysis, management and visualization of business and engineering information.

#### CFM Air

[ www.cfm-air.com ]

#### **Cover Technology**

[ www.covertechnology.com ]

Cover Technology will supply a specific aircraft hangar to the SkySpark challenge. The company designs and produces protective structures using innovative technologies and with great attention to security and environment impact.

#### Magneti Marelli

www.magnetimarelli.com

Magneti Marelli is an international group leader in developing and manufacturing high-tech automotive system and components. With a turnover of € 5.4 billion in 2008, ~ 33,000 employees, 67 Production Sites (80 production units), 10 R&D Centres and 28 Application Centres in 18 countries, Magneti Marelli is a world class global automotive supplier. Magneti Marelli's Motorsport Department is involved with the design, manufacture, sales and technical support for a complete range of hardware and software products for racing applications and motor racing championships. For these competitions, Magneti Marelli develops and produces specific electronic and electro-mechanical components, in particular for engine control and data acquisition. It also provides displays, telemetry systems, alternators, voltage regulators, ignition coils, sensors, injectors, pressure regulators, fuel pumps, Pc tools, software development, high performance hybrid systems, training courses, technical support and track assistance.

#### REM

[ www.rem-ricco.it ]

#### SG Fly Evolution

[ www.sgflyevolution.com ]

#### SICME Motori

[ www.sicmemotori.it ]

SICMEMOTORI designs and manufactures electrical motors for industrial applications with power rating from 0,5kW up to 2500kW, particularly where speed variation is requested.

#### Sparco

[ www.sparco.it ]

Word leader in racing gear. Supplier of fireproof suits and team apparel.

#### Suppliers.

Microel s.r.l.

[ www.flyboxavionics.it ]

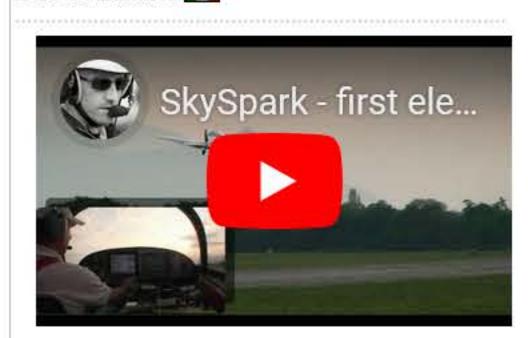
Strumentazione Aeronautica.

Istituto Superiore Mario Boella - NAVSAS [ www.navsas.ismb.it ]

H.T.F. s.r.l. [ www.htf-aero.com ]

Costruzioni meccaniche aeronautiche.

#### Sito in Italiano



#### Official Sponsors

### REALE MUTUA



#### **Technical Sponsors**





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ENVIRONMENT PARK





Sponsor

Aircraft Team Communication Become a Sponsor The Packages Join the Team Together we can build something new

#### Sponsor

#### A mulidimensional challenge.

Company/university project, R&D, technology, innovation, environment, sport and therefore flexible to suit the marketing goals of different companies.

#### Key communication aspects:

- International event
- Development phases with different scheduled events until the record presentation during the World Air Games Torino 2009
- High profile testimonial

#### Sito in Italiano



#### Official Sponsors





#### **Technical Sponsors**



aircraftStudio design AND AND COM

### A. Altair

### <u>eparco</u>







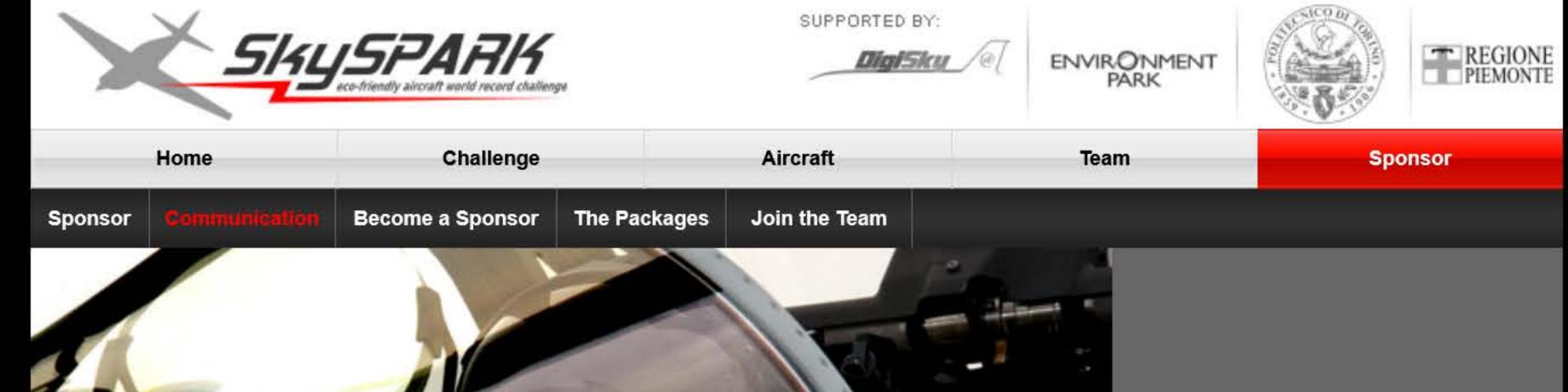
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# build something new

#### Communication

#### Communication opportunities.

#### Opportunities:

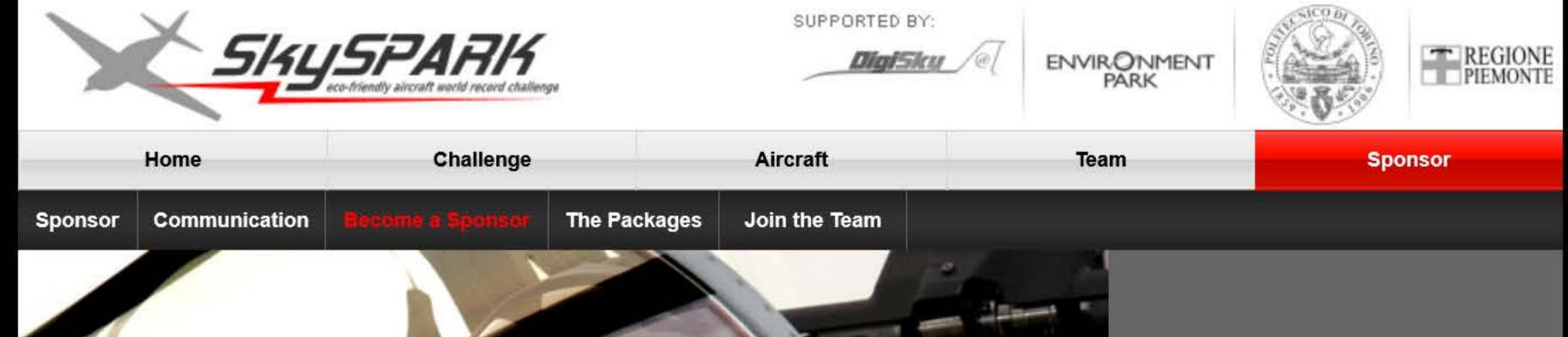
- Branding
- Image and communication rights
- Promotion
- Events
- PR

#### Media:

- Press with dedicated press office.
- Launching press conference to be held in autumn 2008
- Internet including dedicated web site: www.skyspark.eu



Together we can



Together we can build something new

#### Become a Sponsor

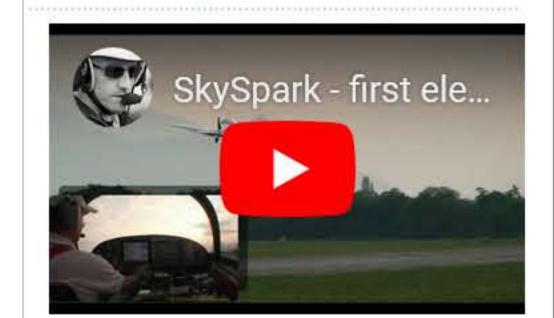
#### Team partner.

There are a number of sponsorship options available for companies looking to get involved in SkySpark.

These separate into the categories below:

- Branding
- Communication and image rights
- Pre and post record events
- Promotional support
- PR activities during tests and the World Air Games

#### Sito in Italiano



#### Official Sponsors





#### **Technical Sponsors**





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### 📤 Altair

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ENVIRONMENT PARK



Sponsor



Aircraft Team Communication Become a Sponsor Join the Team Sponsor

Together we can build something new

#### The Packages

#### Choose your commitment.

SkySpark is flexible in developing sponsorship packages to suit the marketing goals of different companies:

- Main sponsor
- Official Sponsor
- Supporting Sponsor
   Technical Partner

For more information or to receive the "Sponsor file", please contact:

TECHNE s.r.l. Fabrice Boyer [boyer@techne-management.com] / cell. phone +39 348 3530870

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#### Official Sponsors

### REALE MUTUA



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### SICMEMOTORI





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