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**47^{ème} salon international de l'AERONAUTIQUE et de l'ESPACE
47th International PARIS AIR SHOW, Le Bourget**

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EDITORIAL

Le 47^{ème} salon international de l'aéronautique et de l'espace « Le Bourget » qui s'est tenu en juin dernier, a confirmé sa place de premier salon aérospatial du monde.

Près de 100 milliards de dollars de contrats ont été signés et l'europeen Airbus s'est particulièrement distingué en recevant 425 commandes fermes et 303 engagements d'achats. Les motoristes, plus présents que jamais, sont également satisfaits.

Ce salon 2007 a été la vitrine des plus récents aéronefs du monde comme l'A380, le Boeing 777, les avions d'affaires de Dassault, les avions régionaux d'Embraer, les avions ukrainiens et russes, les drones, les missiles air-air... C'est pourquoi, ce numéro spécial, vous présente des acteurs de ce secteur porteur d'avenir ainsi que les sociétés qui soutiennent notre association et notre lettre.

Gageons que le centenaire de ce salon, qui se tiendra en 2009, sera celui de la réussite des coopérations européennes.

The 47th Paris Air Show at Le Bourget, which took place in June, confirmed Paris' place as the world's premier international air and space show.

Companies signed over more than \$100 billion in contracts, notably to the European firm Airbus who received 425 definite orders and 303 purchase agreements. Engine manufacturers, who were more present than ever before, were equally happy.

The 2007 show was the showcase for the most modern aircraft in the world today, including the A380, the Boeing 777, Dassault's business jets, Embraer's regional airplanes, Ukrainian and Russian aircraft, drones, air-to-air missiles and many more. This special edition presents the major players in this future-orientated sector, as well as those businesses that support our industry and our publication.

Let us now hope that the show's centenary, to be held in 2009, will profit from the results of European co-operation.

Colin Cameron

47^{ème} salon international de l'aéronautique et de l'espace 47th International PARIS AIR SHOW, Le Bourget

"Competition between the key players has contributed to a large number of technical and technological advances".

2007 – Key figures

- 2,007 exhibitors from 42 countries.
- 128,000 m² of covered floor space and 192,000 m² of static displays.
- 140 aircraft on display, important aircraft include: Airbus's A380, Boeing's B777, Embraer's EMB 190 and Legacy 600, Rafale and Falcon 7X (Dassault), Eurocopter's Tiger and NH90, The MiG-29 (MIG), the Eurofighter Typhoon, etc.
- Space: ESA (Europe), JAXA (Japan), IASP (Russia).

Over 200,000 trade visitors from 150 countries.

For the first time, Australia, Lithuania, Libya, Mexico and Tunisia were present at the show.

Voici quelques instantanés de ce salon international qui a permis aux européens de mettre en avant leur haute technologie et leur savoir faire industriel. Lors de ce rendez-vous de l'aéronautique et de l'espace, les acteurs internationaux ont pris acte des avancées technologiques de leurs concurrents et assuré la promotion de leurs produits auprès de leurs clients et de leurs "prospects". Il est à noter que le spectacle aérien a permis au public d'avoir un aperçu des performances des avions de combat, des avions de ligne ainsi que des hélicoptères. Lors de ce 47^{ème} salon, le ciel du Bourget s'est embrasé avec les bruits des F16, F18, Rafale, les acrobaties des avions russes et les ballets des patrouilles (Fouga Magister, etc.).

Certains exposants ont retenu notre attention et nous vous invitons à les découvrir.



Tour de piste des Européens :

Airbus s'est distingué en enregistrant 425 commandes fermes et en signant des protocoles d'accord pour un total de 303 avions. Louis Gallois, président d'Airbus a rappelé avec clairvoyance que le marché était porteur « Nous sommes sur des sommets en matière de commandes d'avions pour tous les constructeurs. Mais un jour nous aurons à gérer des périodes moins favorables, il faut se préparer à cela ».

Comme à son habitude, Airbus a fait une démonstration de force en amenant deux A380, un A330MRT (Multi rôle tanker transport) de ravitaillement. En exposition statique, les futurs passagers de l'Airbus géant qui sera mis en service fin 2007 par Singapore Airlines, se sont empressés de pénétrer à l'intérieur.



Airbus A 380

Dassault Aviation - acteur incontournable dans le domaine militaire, puisqu'il contribue à la défense de trente pays, était présent sur tous les fronts présentant les trois versions du Rafale équipées du même système d'armes. Les démonstrations en vol étaient assurées par le biplace Rafale B tandis qu'en exposition statique on pouvait voir les monoplaces : le Rafale M dédié au porte-avion et le Rafale C opérant à partir de base terrestre. Capables de se poser sur un porte-avion et de faire de nombreuses missions d'interception, de reconnaissance, d'attaque, etc., les avions Rafale étaient à l'honneur. Dassault Aviation faisait également la promotion du Mirage 2000 déployé actuellement sur divers théâtres d'opérations.

Dans le domaine civil, l'avionneur présentait le Falcon dont il a déjà vendu plus de 2000 appareils dans 65 pays. Ces avions indispensables aux hommes d'affaires et aux gouvernements, sont le triréacteur Falcon 7X à très long rayon d'action, le Falcon 7X qui est le premier avion d'affaires au monde équipé de commandes de vol entièrement « pilotables » par ordinateur et le Falcon 2000LX idéal pour des atterrissages courts.

Sur le stand de Dassault Aviation, les experts pouvaient apprécier la maquette 1/1 du nEUROn, programme européen de démonstrateur technologique du système d'avion de combat non habité (UCAV) dont il a la maîtrise d'œuvre.

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Le premier vol du prototype né de la coopération européenne entre la France, la Suède, l'Italie, l'Espagne, la Grèce, la Suisse, est prévu en 2011.

Dassault aviation et Thales ont mis l'accent sur leur association dans le domaine des drones de reconnaissance de moyenne altitude et de longue endurance.



Falcon 7 X Dassault

Thales a créé dans son pavillon au salon du Bourget un véritable lieu d'échanges et d'informations en présentant ses produits de haute technologie dans un environnement convivial.

Les outils spatiaux et l'exploitation des données produits par Thales assurent une indépendance de décision et d'action dans de nombreux domaines stratégiques. Les grandes puissances sont convaincues que l'espace est un outil de souveraineté, les États-Unis avec le concept de Space Dominance, la Russie, et les puissances émergentes, en premier lieu la Chine, l'Inde, et le Brésil augmentent d'année en année leurs budgets spatiaux.

Les programmes spatiaux véritablement européens se limitent au domaine civil, sous l'égide de l'Agence spatiale européenne. Dans le domaine militaire, on constate plutôt une juxtaposition de programmes nationaux en matière de télécommunications comme d'observation.

Ainsi, les trois programmes d'observation ont été décidés séparément, même si Thales Alenia Space est partie prenante des trois programmes qui sont :

- Français avec le satellite optique Hélios, pour lequel AAS a réalisé l'instrument de haute résolution. Grâce à des investissements conséquents de Thales et du gouvernement français pour plus de 90M€, Thales Alenia Space dispose de moyens de conception, et de tests pour les instruments optiques de THR uniques en Europe,

- Allemand SAR Lupe pour lequel Thales Alenia Space a réalisé le Radar,
- Italien avec le satellite Dual Radar CosmoSkymed réalisé par Thales Alenia Space.

De même pour les applications militaires, Thales Alenia Space a participé à trois des systèmes de télécommunications spatiales avec les programmes français (système Syracuse sous maîtrise d'œuvre Thales Alenia Space), allemand (satellite SatCom BW, réalisé par Thales Alenia Space) et italien (satellite Sicral réalisé par Thales Alenia Space).

Lors d'une conférence de presse au Bourget, Denis Ranque, PDG de Thales, a précisé qu'il y avait entre son entreprise et son partenaire italien Finmeccanica des synergies évidentes dans le domaine spatial « Nous détenons trois co-entreprises avec Finmeccanica et participons ensemble à de nombreux programmes spatiaux ».



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L'Italie était très présente au Bourget, avec la participation de 17 entreprises, les annonces de lancement du Projet *Torino Piemonte Aerospace* ainsi que de l'événement international *B2B* du secteur *aerospace Meetings Torino* qui se tiendra en mars 2008. Septième pays au monde et quatrième en Europe, l'Italie a un revenu de plus de 6.1 milliards d'euros et une force de travail composée de 38.000 professionnels pourvus d'un haut niveau de spécialisation. L'industrie aérospatiale italienne constitue le principal secteur manufacturier d'Italie dans le contexte des systèmes intégrés à haute technologie. Les investissements en Recherche et Développement, équivalents à 14 — 15% du chiffre d'affaires global, ont permis d'atteindre des objectifs considérables en termes d'acquisitions de marchés importants.

La société italienne qui soutient les activités de l'AAE, représente bien toutes les avancées technologiques de l'Italie dans le domaine des télécommunications et c'est pour cela que nous avons tenu à vous la présenter.

Intervista a Claudio MONTINGELLI : RUOLO DELL' ITALIA E DELL' EUROPA NEL MONDO DELL' INNOVAZIONE

Fare Innovazione in Italia e in Europa, quali sono le principali difficoltà e i principali vantaggi ?

E' fuori dubbio che la capacità di innovazione oggi è l'unica soluzione per il recupero della competitività del sistema economico-industriale del nostro paese ed in generale, per tutto il mondo occidentale.

Affermare semplicemente, come fanno in molti, che le leve per innovare risiedono esclusivamente nella ricerca e sviluppo è decisamente sbagliato.

A mio modo di vedere, le politiche di recupero del vantaggio competitivo delle nostre imprese, nascono prevalentemente nella capacità di offrire nuove value proposition del mix prodotto/ servizio e nella realizzazione di nuovi modi di fare business.

Il mondo delle telecomunicazioni e, più in generale dell' ICT , e' una dimensione straordinaria per abilitare l'innovazione con tutte le sue emergenti capacità.

L'Eurotelecomunicazione sta inseguendo questo principio da anni a differenza della maggior parte di aziende della mia stessa dimensione, le quali si limitano a svolgere attività di man power, rivendita di prodotti non completi... altro che innovazione!

Dobbiamo puntare a una strategia differente della competizione tradizionale, perché il concetto di essere vincenti solamente su sistemi produttivi facendo leva sul fattore produttività \ efficienza, è cambiato.

Per me, la nuova strategia competitiva è quella di evitare il più possibile la competition e sviluppare la capacità supertition, ossia la capacità di proporre servizi diversi e nuovi oltre l'atteso, mantenendo dei valori brand di segmento alto e prodotti/servizi di nicchia.

Innovazione significa evitare che i prodotti vengano unicamente gestiti e affidati a chi realizza la rete e offre il servizio. Se si riuscissero ad evitare dei passaggi, il rapporto qualità - prezzo sarebbe sorprendentemente più basso.

Siamo cresciuti soprattutto sulla ricerca di modalità innovative, questo significa posizionarsi in nicchie di lavoro diverse rispetto a quelle tradizionali, pensabili in tutta Europa

L'Europa e' pronta per il Wireless o la fibra ottica e' ancora a prova di futuro?

E' quasi impossibile non imbattersi in un articolo che tratti delle tecnologie Wireless in un'ottica di lungo periodo; solo la tecnologia Wireless è destinata, evolvendosi, a rimanere un evitabile caposaldo della comunicazione abilitante la modalità degli utenti.

Invece le connessioni adsl saranno destinate a scomparire cominciando dal mondo degli edifici ad uso residenziale.

Il motivo di questa futura uscita di scena è principalmente legato all'asimmetria che distingue il normale funzionamento di una linea adsl, ostacolo ad una piena interattività comunicativa ed applicativa. Servizi quali back up remoto, videoconferenza ad alta definizione, hdtv o multipli canali televisivi contemporanei (si pensi al numero di televisori presenti in ogni casa), videosorveglianza ecc... trovano nelle limitazioni delle linee adsl un freno alla loro diffusione ed adozione.

La complementarietà tra la fibra ottica e la copertura wireless garantiranno la piena soddisfazione delle esigenze di comunicazione del prossimo futuro.

Ogni edificio che oggi è servito da gas, corrente elettrica ed acqua potabile dovrà inevitabilmente essere raggiunto dalla fibra ottica, quale naturale completamento delle necessità primarie di ogni soggetto pubblico o privato, impresa o cittadino.



*Claudio
Montingelli*

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Con il wi fi coniugato alla branchia d'utente a banda larga, potrà essere alimentata tutta la casa con il segnale tv, senza necessità di un ulteriore cablaggio.

Ben fanno quindi, quelle amministrazioni europee che nell'ambito del proprio territorio stimolano l'acquisizione e \ o la stesura di nuove infrastrutture in fibra ottica, tramite finanziamento diretto o compartecipato, accrescendo la diffusione e creando il tessuto principe per la reale diffusione della banda larga.

In Europa, in futuro, converrà estendere la rete fissa verso il Broadband (banda larga) o usare la rete mobile con le nuove tecnologie?

Una cosa è certa, il wireless è diventato grande e, così come anche le tradizionali reti su doppino telefonico che hanno conosciuto lo sviluppo della banda larga con le tecnologie frame relay, atm, adsl, anche il wireless offrirà il broadband differenziando le modalità di accesso.

Gli operatori offriranno sempre più diversi punti di accesso alla rete, garantendone esclusività di trattamento come la fatturazione unica dei servizi, il riconoscimento dell'utente, l'individuazione dell'accesso e soprattutto il cosiddetto "roaming" tra le differenti reti.

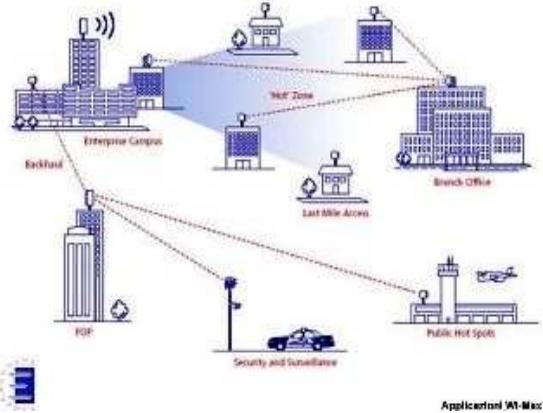
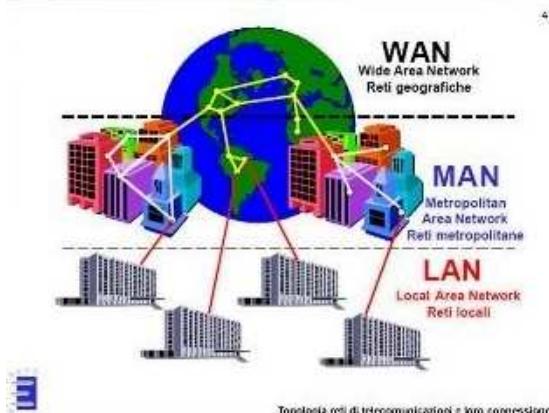
Noi Europei ci stiamo adeguando?

Il futuro è la grande rete nella quotidianità delle nuove generazioni ma non come lo conosciamo noi, ossia per navigare, per cercare informazioni... questo è già passato.

I miei due figli di quattordici e diciassette anni mi chiedono spesso: "... e voi come facevate senza internet....?" e sono rimasto ancora più colpito quando per mitigare i rischi di un accesso a internet incontrollato, avevo provato a rimuovere le schede wi fi dai loro portatili e loro mi hanno risposto: ".... niente da fare, un pc non in rete non è un pc...".

Cosa si aspetta la Eurotelecomunicazioni dal mercato europeo?

La possibilità di poter realizzare in paesi europei disagiati e in sottosviluppo migliaia e migliaia di chilometri di fibra ottica, realizzare reti wireless senza fili in città e poter vedere, in un prossimo futuro, la realizzazione di reti Wi max in ambito civile e militare che potranno essere utilizzate per mettere sotto controllo territori in cui non è facile accedere.



Biographie

Claudio MONTINGELLI est né à Rome le 24 novembre 1960. Il débute dans le domaine des communications téléphoniques.

Il est le fondateur, en 1998, de la société Eurotelecomunicazioni dont le siège est à Rome*. Cette société est spécialisée dans la réalisation certifiée des réseaux Lan, avec des câbles en cuivre et en fibre optique, des réseaux Wan, Man, Wi.fi, et très bientôt des réseaux Wi max pour la réalisation des installations de sécurité et de vidéosurveillance.

La société est, non seulement présente en Italie mais dans le monde entier, en particulier en Etiopie, au Niger, en Sierra Leone, au Maroc, en Guinée, en Tanzanie, en Roumanie ...

Claudio MONTINGELLI nasce a Roma il 24 novembre 1960. Inizia nel campo delle comunicazioni telefoniche.

Ha fondato la società Eurotelecomunicazioni, nel 1998, con sede a Roma*. Questa società è specializzata nella realizzazione certificata ed omologata di reti Lan, con posa in opera di cavo in rame ed in fibra ottica, reti Wan, Man e Wi.fi. e presto, con le nuovissime reti Wi max si specializzerà nella realizzazione di impianti di sicurezza e videosorveglianza. Offre il proprio servizio non solo in Italia ma in tutto il mondo, in particolare Etiopia, Nigeria, Sierra Leone, Marocco, Guinea, Tanzania, Romania...

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Visite de quelques acteurs internationaux

United States of America

The United States of America this year presented its Trade Department and its major exhibitors such as Boeing Company, Lockheed Martin, Raytheon, Cessna, Bell AG.

Boeing is the leading aerospace company and the largest manufacturer of commercial jetliners and military aircraft combined.



At the Paris Air Show, Boeing put on three days of air displays of its 777-300ER.

During the exhibition, Boeing signed important agreements (in particular with Korea Aerospace Industries) and received new orders (Air France – KLM group, etc.).

Although Boeing received fewer orders than their chief competitor Airbus, it showcased its plans for the future by presenting its new aircraft, the 787. During a press conference, Mike Bair, vice president and general manager of the 787 programme, reported on the first all-new jetliner. He said “the team working on the airplane is working hard to prepare for the premiere.” The future 787 “Dreamliner”, the first commercial aircraft to use composites as its primary structure, is in the final stages of factory assembly. Its first flight will be this year and it will enter into service in May 2008. For Mike Bair, “it’s the strongest confirmation possible that we are bringing the right airplane to the market at the right time. The airlines of the world have validated that the environmental performance, passenger appeal and new technologies that are fundamental to the 787 are the right combination for the second century of powered flight.” Boeing has received 584 orders from 45 customers since the Dreamliner’s launch in 2004.

The Boeing Company employs more than 150,000 people across the United States and in 70 countries worldwide. Total company revenue for 2006 was

\$61.5 billion. Boeing, the world’s premier manufacturer of commercial jetliners for more than 40 years, is organised into two business units: Boeing Commercial Airplanes and Boeing Integrated Defense Systems.

Bell Augusta Aerospace Company was formed to capitalise on the strengths and capabilities of the two aerospace companies. The company produces the rotorcraft BA609 civil “Tiltrotor”, which combines the speed, altitude and comfort of a turboprop with the vertical takeoff and landing capability of a helicopter.

Russia

Russia, a traditional participant in the Paris Air Shows, presented aerospace products and services offered for export by more than 60 enterprises and organisations. Their participation in the Paris Air Show 2007, staged by Rosoboronexport State Corporation, may give a renewed impetus to the development of production cooperation with foreign states. This year they exhibited models, mock-ups, posters and promotional materials for a full range of modern aircraft and helicopters, airborne weapons, air defence systems and dual and civil purpose space technologies.

The world-renowned Sukhoi and MiG multi-role fighters made up the core of the exposition: Sukhoi combat aircraft were represented by the Su-27SK multi-role fighter, the Su-30MK, responsible for a considerable part of Russian aircraft exports, and the Su-32 fighter bomber.

The Russian aircraft corporation MIG Federal State Unitary Enterprise (RAC MIG) brings together every aspect of business to provide the complete process of aircraft development, manufacturing, selling and after-sale service for aircraft maintenance and upgrades. According to a decree from the Russian President Vladimir Putin, RAC MIG is to become a private company. MIG is a world-famous, instantly recognisable name; its history goes back over 67 years,



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during which time it has designed over 450 combat aircraft. Over 60,000 MiG aircraft have so far been produced in Russia and the USSR, 11,000 of which have been in operation defending the skies over 40 nations.

MiG-family aircraft were represented at the Paris Air Show 2007 by the unique MiG-29M OVT. Their flight program presented an aerobatics display performed by RAC MIG test pilot Mikhail Belyaev. His flying displays always stand out due to their complexity, brilliant technique and superb airmanship. "We have been fully satisfied by the results achieved. At the same time, the new control capabilities have not been finalised yet and we will continue our work to extend the jet's manoeuvrability," explained chief test pilot Pavel Vlasov. Guests and exhibitors at the show were able to admire breathtaking sky aerobatics performed by the unique super maneuverable MiG-29M multi-role fighter with thrust vector control.

Brazil

At Le Bourget, Embraer promoted the ERJ 145 and E-jets families of commercial jets, the executive jets portfolio and its defence systems, which include the ISR family and the super Tucano.

The Embraer 170 jet exhibited at this year's air show belonged to EgyptAir Express. The Embraer 170 has long been awaited by airlines, as the jet fleet currently in operation



is now almost 15 years old and in the 170, they see a replacement, state-of-the art aircraft that offers reliability, performance, comfort and adequate economics. This aircraft will be displayed throughout Europe, the Middle-East, and Africa after the Paris Air Show, which also saw the first showing of a full-scale replica of the Phenom 300.

The Embraer family has been the first E-jets family aircraft to achieve this operating capability, which represents the final step towards flying into and out of London City Airport. The Embraer 190 will be the second E-jet to incorporate the same functionality and its release is on schedule for December 2008.

On the success of the Legacy 600 jet, during the Paris Air show, Luis Carlo Affonso, Embraer executive vice president said "we are honored that Cirrus Aviation has selected the Legacy 600 to further expand its fleet".

Embraer is the world's largest manufacturer of commercial jets of up to 120 seats, and one of Brazil's leading exporters. It has offices, industrial operations and customer service facilities in Brazil, the United States, France, Portugal, China and Singapore. The company designs, develops, manufactures and sells aircraft for commercial and executive aviation, as well as defence and governmental sectors.

China

China Aviation Industry Corporation AVIC I, the central force in China's aviation industry, this year presented a strong spectrum of products, projects and cooperation opportunities. AVIC I, AVIC II and CATIC (China national aviation technology import and export company) jointly had 274 m² of static displays. The major products on show included: the "Xialong" fighter, the "Shangying" trainer, the "MA160" regional propeller aircraft, the "ARJ21" regional jet, as well as flight deck simulation and ejection seat systems.

AVIC I, the manufacturer of the F10 fighter, the MA60 turbo-prop regional airplane and the ARJ21 regional jet, the mainstay of Chinese aviation industry, presented its strength with a strong array of products and projects: military aircraft, aircraft engines and air-to-air missiles.

AVIC I is a large, state-owned industrial group, established in 1999, which has 47 large and medium-sized facilities, 31 science and technology research institutes and 22 specialised companies and institutions. AVIC I develops, manufactures and supports military and commercial aircraft, aircraft engines, air-borne systems and weaponry fire control systems.

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Intermediate jet trainer

India

The HAL Company was in Paris amongst reports of a 40% growth in business last year and a \$10 billion order book, plus prospects for continued future expansion. HAL is divided into the following groups: aircraft and aerospace, helicopters, engines, accessories and avionics and material and services. HAL today has emerged as one of the country's premier defence production companies and is fully-owned by the Indian Ministry of Defence.

Among its many products, HAL presented an intermediate jet trainer (UT), the TEJAS light combat aircraft and an advanced light helicopter for military and civil roles.

Hindustan Aeronautics Ltd (HAL) is a premier aerospace company owned by the Indian Ministry of Defence, with its corporate headquarters in Bangalore.

The company has 16 production divisions and 9 collocated R & D centers spread across the country and has formulated a long-term plan for the period 2003-2012, which considers the medium-term requirements of the Indian defence services, the major customers of the company.

The plan envisages a threefold increase in sales turnover with a focus on production based in R & D projects and improved profitability and productivity through outsourcing and HRD interventions.

Israel

The watchword at the Paris Air Show of the Israeli manufacturer was "smarter defence means better defence". Israel presented its manufacturers and their sophisticated solutions for the defence and security.

Companies of note included Aeronautics Defence Systems Ltd., who specialised in security, intelligence, surveillance and reconnaissance systems. The company, a pioneer in this field, is known for its defence solutions, especially its unmanned systems (UAVs).

Also present were Israel Aerospace Industries (IAI), Israel's largest high-tech company and a globally-recognised leader in defence and civil aerospace technology, and Rafael Armament Development Authority Ltd., which was founded in 1948. The company produces missiles, combat vehicle upgrading, UAVs, and much more. Rafael is involved in joint ventures with organizations such as Lockheed Martin, Northrop Grumman, General Dynamics, and Thales.



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