

2010 Annual Report

Informe Anual 2010. Urteko Txostena



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Annual Report 2010

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Presentación

Me complace gratamente presentar la memoria 2010 de la asociación cluster del sector aeronáutico y espacial vasco que me honro en presidir, y comentar un ejercicio en el que nuestro cluster se ha visto afectado por la crisis financiera y económica mundial y en el que ha necesitado ensayar su capacidad de resistencia.

Si bien en los dos últimos años de duro desierto, en nuestra Asamblea General nos tocaba hablar de la situación de crisis y nuestra consigna fue adaptarnos, resistir y prepararnos para el arranque de producción de los programas que pudiera llegar, observamos con satisfacción que a pesar de haber continuado acusando las dificultades generadas por la crisis, el año 2010 ha dejado atrás ese estancamiento y ha dado paso a los primeros síntomas de una recuperación incipiente que esperamos para el ejercicio 2011.

El retorno de la confianza de consumidores y líneas aéreas reflejada en la buena evolución de la aviación comercial del pasado año, y la entrada en producción de nuevos programas ha impulsado el crecimiento de las ventas de las empresas asociadas en HEGAN.

Así, la cifra total de facturación de todos los asociados en todas sus plantas ha alcanzado los 1255M€ en 2010, lo que supone un incremento del 7,5%. Del mismo modo, el empleo, a pesar de todos los problemas acaecidos, ha aumentado en un 8,6% en el total de los asociados. Por lo que respecta a la actividad en Euskadi, se ha incrementado la cifra de facturación en un 4%, hasta alcanzar casi los 663M€, ventas que sacaron adelante 3738 personas, 14 menos que el año 2009.

Podríamos decir, por tanto, que volvemos a la senda del crecimiento, interrumpida puntualmente, y prevemos un nuevo crecimiento para el 2011, que podría situarse en torno al 6% al finalizar este periodo. Previsiblemente, nuestras empresas alcanzarán una fase de mayor dinamismo entre 2011 y 2015, gracias al despegue de las ventas y de la producción en los nuevos aviones A380, A350XWB, A400M y Boeing 787 principalmente. Confiamos asimismo en que se produzca una buena evolución y una mayor capacidad de crecimiento de nuestras empresas en los segmentos de helicópteros, aviación regional y de negocios.

Los trabajos para el programa A350XWB de Airbus, que se prevé que vuele en 2012 y llegue a los clientes en 2013, son de gran importancia para el futuro de nuestras empresas. Los socios participan en diversas fases de diseño conceptual y de detalle de componentes, sistemas, líneas de montaje y grandes utillajes y ensayos estructurales, y en algunos casos, como los de Aernnova, Aciturri y Alestis, participan como socios a riesgo con grandes paquetes de trabajo de las grandes estructuras del avión. Este modelo a riesgo se extiende al motor Trent XWB, en el que ITP es responsable de la turbina de baja presión de su motor.

Destacamos la entrada de nuestros socios en nuevos segmentos de helicópteros, como el Super-Puma de Eurocopter y el NH90 de Agusta Westland, y en aviones ejecutivos, entre los que cabe mencionar varios aparatos de Hawker Beechcraft. Y no podemos dejar de mencionar la actividad espacial que, encabezada por SENER, sigue contando con la participación de trabajos de otras compañías a las que se les ha añadido el CTA en el apartado de ensayos.

También señalamos de interés que casi el 30% del empleo ubicado en Euskadi pertenece a empresas PYMES, no Tier1 (proveedor de primer nivel), que siguen con su tendencia de aumentar facturación, han resistido también la crisis, más del 50% de sus ventas son a empresas fuera del cluster y mantienen sus estándares de calidad al día.

Finalmente, también resulta significativo el elevado porcentaje de exportaciones y el esfuerzo mantenido por nuestro sector en inversiones en I+D. En los últimos 15 años, la media de las exportaciones alcanza el 76% de la cifra de ventas y la de inversión en investigación y desarrollo el 16%, porcentaje que en 2010 supuso una inversión de 148M€, y que equivale al 13% de la inversión total en I+D en Euskadi. Este esfuerzo permanente y prolongado en el tiempo es el que ha propiciado, junto al resto de factores clave, la buena situación competitiva de un sector preparado para aprovechar las señales de la recuperación y que genera unos bienes sociales indirectos de gran calado.

Debemos, sin embargo, seguir haciendo frente a estimulantes desafíos derivados de la globalización, ante los que nuestro sector debe desarrollar y mantener su ventaja competitiva de forma sostenible a través de la mejora en la eficacia y eficiencia en cada uno de los eslabones integrantes de la cadena de valor del producto. Entre estos retos señalamos la dolarización en el proceso de compras y un euro quizás sobrevalorado, la volatilidad del coste de las materias primas, los costes salariales más altos que en otras áreas, el entendimiento con los agentes laborales para construir competitividad entre todos, la obtención de una financiación adecuada a los plazos y cifras del sector y la necesidad de mantener altos niveles de I+D+i. Deseamos seguir siendo competitivos con localizaciones estratégicas y cuidando especialmente el crecimiento de los puestos de trabajo ubicados en Euskadi.

Dinamizar la cooperación, promocionar y representar al cluster, dar información de valor y acompañar en el desarrollo de los asociados son las tareas principales a la que esta asociación cluster dedica su tiempo, con la conciencia de que lo conseguiremos -antes, más y mejor- poniendo el foco en las personas a las que trata de servir, contribuyendo así al desarrollo de la sociedad.

Aurkezpena

Atsegin handiz, lehendakari naizen Euskadiko aeronautika eta espazio sektoreko elkar-tearen 2010. urteko txostena aurkeztu nahi dizuet. 2010eko ekitaldian, gure klusterrak mundu mailako finantza eta ekonomi krisiaren eragina jasan du, eta aurrera jarraitzeko ahalmena probatu behar izan du.

Azken bi urte gogor hauetan, gure Batzar Nagusian krisi egoeri buruz hitz egitea ego-kitu zaigu, eta haxe izan da gure kontsigna: egoera horretara egokitzea, gogor eustea eta irits zitezkeen programek ekar zezaketen ekoizpenari erantzuteko prestatzea; krisiak sortutako zailtasunen eraginpean jarraitzen dugun arren, poz handiz ikusi dugu, 2010. urtean, geldialdi hori atzera gelditu zela, eta 2011. urterako espero dugun suspertzearen lehenengo sintomak agertu zirela.

Kontsumitzaileen eta airelineen konfiantza berriro ere handitzen ari dela ikusi dugu, eta hegazkintza komertzialaren bilakaera onean islatu da hori; bestalde, programa berriak abiarazi dira, eta horri guztiari esker, HEGANeko bazkide diren enpresen salmentek gora egin dute.

Beraz, bazkide guztiek beren lantegi guztietan lortu duten fakturazioa 1255M€-ra iritsi da 2010ean, hau da, % 7,5eko hazkundea izan dute. Modu berean, arazoak ere ugariak izan diren arren, enplegua % 8,6 handitu da bazkide guztien artean. Euskadiko jarduerari dagokionez, fakturazio kopurua % 4 handitu da, eta 663M€-ra iritsi gara ia; 3738 pertsonak atera zituzten aurrera salmenta horiek, 2009. urtean baino 14 pertsona gutxiagok.

Hala, bada, berriro hazkundearen bidea hartu dugula esan dezakegu, denboraldi batez etenda egon ondoren. 2011. urtean ere hazkundearekin jarraitzea aurreikusten dugu, eta urtea amaitzean % 6 ingurukoa izatea espero dugu. Aurreikuspenen arabera, gure enpresek dinamismo handiagoko fasea ezagutuko dute 2011tik 2015era bitartean, A380, A350XWB, A400M eta Boeing 787 hegazkin berrien salmentei eta ekoizpenari esker, nagusiki. Bestalde, helikopteroen, eskualdeko hegazkinen eta negozioen atalean ere gure enpresek bilakaera ona eta hazkunderako ahalmen handiagoa izango dutela uste dugu.

Airbusen A350XWB programarako lanak ere oso garrantzitsuak dira gure enpresen etorkizunerako. Aurreikuspenen arabera, hegazkin hori 2012an aireratuko da, eta 2013an iritsiko da bezerengana. Bazkideek hainbat fasetan hartzen dute parte: osagaien, sistemen, muntai lineen eta tresneria handien eta egiturazko entseguen diseinu kontzeptualean eta xehetasunen diseinuan; zenbait kasutan, Aernnova, Aciturri eta Alestis enpresen kasuan, adibidez, arriskuko bazkide moduan hartzen dute parte, hegazkinaren egitura handien lan pakete handietan. Arriskuko eredu hori Trent XWB motorrera ere hedatzen da: ITP da motorraren behe presioko turbinaren arduraduna, eta DMPK ekoizten ditu hegazkin horren lurreratzeko sistemarako multzoak.

Gure bazkideak helikopteroen atal berrietan sartu direla azpimarra dezakegu, Eurocopter-en SuperPuma eta Agusta Westland-en NH90 helikopteroetan, adibidez, eta baita hegazkin exekutiboetan ere, besteak beste, Hawker Beechcraft etxearen hainbat hegazkinetan. Bestalde, jarduera espaziala ere aipatu behar dugu, SENER buru duela, beste konpainia batzuen lanetako parte-hartzearekin jarraitzen baitu. Entseguen atalean CTA enpresak ere hartzen du parte orain.

Euskadin kokatutako enpleguaren % 30 ia ETE enpresei dagokie, eta ez dira Tier1-ekoak (lehen mailako hornitzaileak), eta fakturazioa handitzeko joerari eusten diote, krisiari aurre eginez; salmenten % 50 baino gehiago klusterrekoak ez diren beste enpresa batzuei egiten zaizkie, proiektuak dibertsifikatzea lortuz, eta kalitate estandarrik eguneratuta dituzte.

Azkenik, esanguratsua da baita ere esportazioen ehuneko handia eta gure sektorea I+G motako inbertsioetan egiten ari den ahalegina. Azken 15 urteetan, esportazioen batez bestekoa salmenta kopuruaren % 76ra iritsi da, eta urteko salmenten % 16 ikerketan inbertitu dute; ehuneko horrek 148M€-ko inbertsioa suposatzen zuen 2010ean, hau da, Euskadiko I+G motako inbertsio osoaren % 13; eta esportazioen batez bestekoa salmenten kopuruaren % 76ra iristen da. Ahalegin iraunkor eta luze horrek, funtsezko gainerako faktoreekin batera, bultzatu du sektoreak lehiakortasunaren ikuspegitik duen egoera ona; gainera, sektorea prest dago susperraldiaren seinaleei probetxu ateratzeko eta garrantzi handiko zeharkako gizarte ondasunak sortzen ditu.

Hala ere, globalizazioak aurrean jartzen dizkigun erronka gogo-pizgarriei aurre egiten jarraitu behar dugu, eta gure sektoreak lehiakortasunaren ikuspegitik duen abantaila garatu behar du eta berorri modu iraunkorrean eutsi behar dio, eraginkortasuna hobetuz produktuaren balio katea osatzen duen lan bakoitzean. Erronka horien artean, besteak beste, honako hauek aipa daitezke: erosketa prozesuaren dolarizazioa eta, agian, euroari gehiegizko balioa ematea, lehengaia kostuaren aldatokotasuna, beste eremu batzuetan baino soldata kostu handiagoak, lan eragileen arteko elkar ulertzea guztien artean lehiakortasuna eraikitzeko, sektoreko epeen eta zifren arabera egokitutako finantziario egokia lortzea, eta I+G+b maila altuei eusteko beharra. Lehiakorrak izaten jarraitu nahi dugu, kokapen estrategikoak eta, bereziki, Euskadiko lanpostuen hazkundea zainduz.

Lankidetzat bultzatzeari, klusterra sustatzeari eta ordezkatzeari, baliozko informazioa emateari eta bazkideen garapenean laguntzeari eskaintzen die kluster elkarre honek denbora gehien, eta helburu horiek lortuko ditugula -lehenago, gehiago eta hobeto- uste dugu, arreta guzua zerbizua eskaini nahi dien pertsonengan jarritik, hala, gizartearen garapenari laguntzeko.



It is a pleasure for me to present the 2010 report of the Basque Aerospace Cluster Association of which I am honoured to be president. I am going to talk about a year in which our associa-

tion has been affected by a world financial and economic crisis that has tested the strength of this sector.

Despite the hardship of the last two years, at our General Assembly we determined to adapt, resist and be ready to the next production ramp up. In 2010 and in spite of the continued difficulties generated by the crisis, we were delighted to witness the end of stagnation and the first symptoms of the recovery we expect to see during 2011.

The renewed confidence of consumers and airlines, reflected in the positive development of commercial aviation last year, and the coming into production of a number of new programmes, have led to an increase in the sales of HEGAN associate companies.

The total turnover for all the plants of our associate companies reached 1255M€ in 2010, an increase of 7.5%. Likewise, despite all the problems, the total number of jobs in all our associate companies increased by 8.6%. With respect to the activity in Euskadi, turnover increased by 4% to almost 663M€ that carried out by 3738 persons, 14 less than in 2009.

We might say, therefore, that following this temporary setback, we are once again on the road to growth and we expect new growth during 2011, which could rise to 6% by the end of that year. We expect that our companies will enjoy a time of greater activity between 2011 and 2015, thanks mainly to the new aircraft -A380, A350XWB, A400M and Boeing 787- that are to begin sales and production during this period. We are also confident that our companies will develop satisfactorily and will have greater capacity for growth in the helicopter, regional and business aviation segments.

Airbus A350XWB workload, which is expected to fly in 2012 and is scheduled for delivery in 2013, is very important for the future of our companies. Our members are taking part in the detailed and conceptual design stages for a number of different components, systems, assembly lines and tooling and structural tests. In some cases, such as Aernnova, Aciturri and Alestis, our associates are acting as risk partners with work packages for large structures of the aircraft. This risk model is also applied to the Trent XWB engine, in which ITP is responsible for the low pressure turbine of this engine.

Special mention might be given to the participation of our members in new helicopter programmes, such as the Super-Puma of Eurocopter and the NH90 of Agusta Westland, and in business aircrafts, including several models made by Hawker Beechcraft. And we must not forget the space activities of our associate companies, who, led by SENER, continue to have the participation of other companies with the addition of CTA in the area of testing.

It is also interesting to notice that almost 30% of the employment in the Basque country corresponds to SMEs, non Tier1 (first level supplier), which continue to see an increase in their turnover. They also have been able to withstand the crisis, more than 50% of their sales are to clients from outside the cluster and keep their quality standards updated.

Finally, the exports and the investments in R&D are also significant. During the last 15 years, HEGAN associate companies have exported an average of 76% of their sales, and have allocated an R&D investment average of 16% over sales. In 2010, this percentage represented an investment of 148M€ and the 13% of the total R&D investment of Euskadi. Together with a number of other key factors, this permanent and prolonged effort over a period of time has allowed the sector to take advantage of the first signs of recovery and generate important indirect social benefits.

However, we must continue to confront the stimulating challenges of globalisation, in the face of which our sector must continue to develop and maintain its competitive advantage in a sustainable manner through improved efficacy and efficiency in each one of the elements that form part of the product value chain. Among these challenges, we should point out the dollarisation of the purchasing process and a perhaps overrated Euro, volatility in the cost of raw materials, a higher wage bill than in other areas, the understanding reached with labour representatives to work together to increase competitiveness, the securing of adequate financing for the particular figures and terms of this sector and the need to maintain high levels of R&D. We are determined to continue our competitiveness with strategic locations and paying special attention to the creation of new jobs in the Basque Country.

Fostering cooperation, promoting and representing the cluster, providing valuable information and supporting our members development are the major tasks to which this cluster association dedicates its time, aware of the fact that we will achieve this -before, more and better- by focusing on the people we intend to serve and, in this way, contributing to the development of society.

Jorge Unda
President of HEGAN

La asociación Cluster - HEGAN

La asociación

HEGAN es una asociación privada sin ánimo de lucro que agrupa al sector aeronáutico y espacial vasco, creada con el fin de potenciarlo, promoverlo y estimularlo. Su misión, como Asociación Cluster, es el de representar y dinamizar el sector, para facilitar su competitividad a corto, medio y largo plazo mediante la cooperación y la innovación entre empresas y otros agentes, dando respuestas en colaboración a los retos estratégicos del mismo.

Organización

Asamblea General

Es el máximo órgano de la Asociación. Está integrada por todos los socios y es, por tanto, el foro de expresión de la voluntad de éstos.

Junta Directiva

Es el órgano colegiado de administración y dirección. Sus miembros 2010, designados por la Asamblea General, fueron:

Jorge Unda -Presidente- SENER
José Luis Osoro -Vicepresidente- AERNNOVA
Ignacio Mataix -Secretario- GRUPO ITP
Inmaculada Freije -Vocal- GOBIERNO VASCO
Juan José Martín -Vocal- AEROMECA
Xabier Berasategi -Vocal- GRUPO TTT
Lara Cuevas -Vocal- SPRI
José Juez Lángara -Director de HEGAN-

Comité Ejecutivo

Este comité, delegado de la Junta Directiva, actúa como órgano ejecutivo en las actuaciones de la Asociación Cluster, se reúne bimestralmente y sus miembros 2010 fueron:

Javier Viñals -Presidente- SENER
Alfredo Esquisabel - AERNNOVA
Juan José Martín - AEROMECA
Armando Jiménez - ALFA MICROFUSIÓN
Juan Miguel López Uria - GOBIERNO VASCO
Plácido Márquez - GRUPO ITP
Xabier Berasategi - GRUPO TTT
Ángel Alonso - NOVALTI
Susana Larrea (substituyendo a Javier Gabilondo desde abril de 2011) - SPRI
José Juez Langara- Director de HEGAN
Martín Fdez. Loizaga - Director Adjunto de HEGAN

2010 ha sido año de rotación de cargos que se efectúa periódicamente, según nuestro Reglamento Interno. Después de cuatro años en el Comité Ejecutivo (dos de ellos también en la Junta Directiva), Juan Antonio Alberdi -NUTER- y Carlos Olabe -PCB- cedieron sus puestos a los nuevos representantes elegidos por los Asociados comentados arriba.

Grupos de trabajo

A partir de 2005 los comités permanentes de HEGAN sufrieron una reestructuración pasando a ser grupos de trabajo temporales y flexibles dedicados específicamente a actuaciones puntuales y reportando al Comité Ejecutivo. Estos grupos de trabajo se crean y desaparecen a voluntad de los asociados y según sus necesidades específicas del momento. En 2010, los grupos de trabajo más activos fueron el Grupo de trabajo del Proyecto de Oportunidades y el Grupo de Trabajo del Sistema de Inteligencia Competitiva, para dar soporte a las dos actividades clave de 2010.

Equipo de HEGAN

El equipo permanente de la Asociación es el siguiente:

Mentxu Díaz, Responsable de Administración
Martín Fdez. Loizaga, Director Adjunto
José Juez Langara, Director
Ana Rodríguez, Responsable de Operaciones

Kluster elkartea - HEGAN

Elkartea

Aeronautika eta espazioaren sektoreko euskal enpresak biltzen dituen irabazi asmorik gabeko elkarte pribatua da HEGAN, sektore hori indartzeko, sustatzeko eta bultzatzeko sortutakoa. Sektorea ordezkatzeko eta dinamizatzea da Kluster Elkartearen misioa, horrela, enpresen eta beste eragile batzuen arteko lankidetzaren eta berrikuntzaren bidez, epe motzera, ertainera eta luzera sektorearen lehiakortasuna sendotzeko, sektoreko dema estrategikoei lankidetzan oinarritutako erantzuna eskainiz.

Antolamendua

Biltzar nagusia

Hauex da elkarteko organo gorena. Bazkide guztiek osatzen dute, eta beraz, bazkideen asmo eta gogoak adierazteko foroa da.

Zuzendaritza batzordea

Administrazioko eta Zuzendaritzako Taldeko Organoa da. Honako hauek dira bertako kideak, Biltzar Nagusiak 2010erako izendatutakoak:

Jorge Unda -Lehendakaria- SENER
José Luis Osoro -Lehendakariordea- AERNNOVA
Ignacio Mataix -Idazkaria- GRUPO ITP
Inmaculada Freije -Batzordekidea- EUSKO JAURLARITZA
Juan José Martín -Batzordekidea- AEROMECA
Xabier Berasategi -Batzordekidea- GRUPO TTT
Lara Cuevas -Batzordekidea- SPRI
José Juez Lángara - HEGANeko Zuzendaria

Batzorde betearazlea

Zuzendaritza Batzordearen ordezkari den talde hau organo betearazlea da klusterraren jardueretan, bi hilean behin batzen da, eta hauek izan dira 2010eko kideak:

Javier Viñals -Lehendakaria- SENER
Alfredo Esquisabel - AERNNOVA
Juan José Martín - AEROMECA
Armando Jiménez - ALFA MICROFUSIÓN
Juan Miguel López Uria - EUSKO JAURLARITZA
Plácido Márquez - GRUPO ITP
Xabier Berasategi - GRUPO TTT
Ángel Alonso - NOVALTI
Susana Larrea (2011ko apiriletik Javier Gabilondo ordeztu du) - SPRI
José Juez Langara - HEGANeko Zuzendaria
Martín Fdez. Loizaga - HEGANeko Zuzendari Laguntzailea

2010. urtean, karguak txandakatu dira, gure Barne Araudian jasotakoaren arabera, aldiari-aldiari egiten denaren ildotik. Batzorde Betearazlean lau urtez parte hartu ondoren (horietako bitan baita Zuzendaritza Batzordean ere), Juan Antonio Alberdik -NUTER- eta Carlos Olabek -PCB- goian aipatutako bazkideek aukeratutako ordezkari berriei utzi dizkiete euren lekuak.

Lan taldeak

2005. urtetik aurrera, HEGANeko batzorde iraunkorrak berregituratu egin ziren, eta horien ordezkari behin-behineko lan talde malguak, ekintza zehatzetara zuzendutakoak, sortu ziren, Batzorde Betearazlearekin lotuta. Lan talde horiek bazkideen nahierara sortzen eta desagertzen dira, unean uneko behar berezien arabera. 2010ean, talde aktiboek Aukeren Proiektuko Lan Taldea eta Adimen Lehiakorako Sistemako Lan Taldea izan dira, 2010eko jarduerak nagusien euskarri horietan izan baitira.

HEGANeko taldea

Elkarteko talde iraunkorra honako hauek osatzen dute:

Mentxu Díaz, Administrazio Arduraduna
Martín Fdez. Loizaga, Zuzendari Laguntzailea
José Juez Langara, Zuzendaria
Ana Rodríguez, Eragiketen Arduraduna

The Cluster association - HEGAN

The Cluster Association

The Association

HEGAN is a private, non-profit association that groups together the Basque Aeronautics and Space sector, created with the aim of fostering, promoting and stimulating the same. As a Cluster Association, its aim is to represent and promote this sector to ensure its competitiveness in short, medium and long-term through co-operation and innovation among companies and other agents, as a response to its strategic challenges in collaboration.

Organisation

General Assembly

This is the highest-ranking body of the Association. It is made up of all Members and is therefore the body that represents their needs.



General Assembly 2010

Board of Directors

This is the Collegial Body of Administration and Management. Appointed by the General Assembly, its members in 2010 were as follows:

Jorge Unda -President- SENER
José Luis Osoro -Vice President- AERNNOVA
Ignacio Mataix -Secretary- ITP GROUP
Inmaculada Freije -Member- BASQUE GOVERNMENT
Juan José Martín -Member- AEROMECA
Xabier Berasategi -Member- Grupo TTT
Lara Cuevas -Member- SPRI
José Juez Langara -Managing Director of HEGAN-

Executive Committee

This committee, delegated by the Board of Directors, acts as executive body in the activities pursued by the Cluster. It meets on a two-monthly basis and its members in 2010 were as follows:

Javier Viñals -President- SENER
Alfredo Esquisabel - AERNNOVA
Juan José Martín - AEROMECA
Armando Jiménez - ALFA MICROFUSIÓN
Juan Miguel López Uria - BASQUE GOVERNMENT
Plácido Márquez - GRUPO ITP
Xabier Berasategi - GRUPO TTT
Ángel Alonso - NOVALTI
Susana Larrea (has replaced Javier Gabilondo since April 2011) - SPRI
José Juez Langara - Managing Director of HEGAN
Martín Fdez. Loizaga - Deputy Director of HEGAN

In accordance with our internal regulations, in 2010 we saw the rotation of posts that takes place on a periodical basis. Following four years in the Executive Committee (two of these also in the Board of Directors), Juan Antonio Alberdi -NUTER- and Carlos Olabe -PCB- surrendered their posts to the new representatives chosen by the above mentioned Associates.

Working groups

As of 2005, the permanent committees of HEGAN were restructured in temporary and flexible working groups engaged in a number of specific tasks, reporting to the Executive Committee. These working groups are created and dissolved according to the needs of the Members and in accordance with their specific needs at each moment on time. In 2010, the most active working groups were the 'Opportunities Project Working Group' and the 'Competitive Intelligence System Working Group', who worked in support of the two key activities in 2010.

HEGAN's Team

Members of the permanent team of the Association are as follows:

Mentxu Díaz, Administration Supervisor
Martín Fdez. Loizaga, Deputy Director
José Juez Langara, Director
Ana Rodríguez, Head of Operations

The members - Los asociados - Bazkideak

Industry



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Desde 2009, con objeto de intentar mejorar su eficiencia y eficacia operativa enfocada a sus clientes y basada en las personas, HEGAN trabaja en la gestión por procesos. Si en la memoria pasada mostrábamos el mapa de procesos resultante de los primeros ejercicios de identificación de los mismos, en esta edición presentamos una nueva versión mejorada, con la que deseamos cumplir mejor nuestra misión y los objetivos de la reflexión estratégica 2009-2012.

Estrategia y Personas

Durante el año 2010, mientras se soportaba la situación de crisis, surgió en el seno del Comité Ejecutivo el deseo de realizar un proyecto tractor, sectorial, ambicioso y estratégico que relanzara de nuevo la actividad de cooperación y que denominamos 'Proyecto de Oportunidades'. Se tuvo que plantear una nueva planificación de actividades y una búsqueda de recursos que diese respuesta a esta ilusionante iniciativa que, recogiendo los objetivos estratégicos de la reflexión, se convirtió en la actividad clave 2010 y que, todavía en 2011 está movilizando muchos de nuestros recursos.

En el proceso de personas, clave para cualquier organización a nuestro entender, se ha continuado con el plan de desarrollo de las personas del equipo que permita aprovechar las capacidades de todos, determinar retos de cada una, ganar en cohesión, con una visión más compartida y un mayor reconocimiento mutuo.

Dinamización de la Cooperación

Para dar respuesta en colaboración a los retos estratégicos del sector la asociación trabaja en la identificación y promoción de grupos con intereses comunes y que den lugar a proyectos de cooperación, en áreas estratégicas para el sector aeronáutico y espacial, y en otras como tecnología e innovación, calidad y mejora de la gestión e internacionalización.

Y para la identificación de estos grupos con intereses comunes, realizamos tres actividades previas que entendemos son convenientes para avanzar en este proceso y que, junto a esta identificación, forman la llamada 'pirámide de la cooperación':

- Captar y difundir información estratégica,
- Identificar retos estratégicos y potenciales sinergias
- Evaluar las sinergias potenciales identificadas.

El lanzamiento del 'Proyecto de oportunidades' ha supuesto ya en el año 2010, la principal fuente de identificación de estos grupos en cooperación. Este proyecto pretende ser germen de nuevos proyectos en colaboración y de nuevas sinergias y alianzas en las diferentes áreas en las que está desplegado, como lo demuestra la participación masiva con la que se está contando.

Además de determinar varios proyectos tractores en cooperación que se están desarrollando, se ha decidido lanzar una herramienta de comparación (benchmarking) con algunos de los mejores ejemplos aeronáuticos para poder detectar los gaps entre la situación de la cadena de suministro que desarrollan nuestros asociados y una cadena de suministro excelente hoy.

Junto a este emblemático proyecto, en 2010 se ha participado activamente en el EACP (European Aerospace Clusters Partnership), lanzando dos proyectos europeos, uno en el ámbito de la formación y el sistema educativo y otro de tipo más general con el ánimo de mejorar la competitividad de las empresas, y se ha decidido coliderar el Grupo de trabajo de Financiación de esta alianza.

En el ámbito de la gestión –y con el fin de mejorar de la comunicación comercial entre los agentes de la cadena de valor sectorial– se ha continuado el trabajo realizado por la Fundación Hélice el año 2009 con las empresas ubicadas en el cluster aeronáutico andaluz. Así, se ha realizado una recogida de información y análisis de la situación de nuestros asociados en este terreno para la posible creación de un hub sectorial –proyecto AERONET–, iniciativa animada a su vez por el interés de las principales empresas tractoras europeas. También se ha seguido trabajando intensamente en consolidar la posición de

2009. urtetik, HEGAN prozesuetan oinarritutako kudeaketa lantzen ari da, bezeroei begira eta pertsonengan oinarrituta, lanerako duen eraginkortasuna hobetzeko. Iazko memorian, prozesuak identifikatzeko ariketak egin ondoren zehaztu zen mapa azaldu genizuen; oraingoan, mapa horren bertsio berria, hobe, aurkezten dizuegu, eta, horretan oinarrituta, gure misioa eta 2009-2012rako gogoeta estrategikoaren helburuak hobeto bete ahal izatea da gure asmoa.

Estrategia eta pertsonak

2010. urtean, krisi egoera betean, Batzorde Betearazlearen baitan sektore-rako proiektu bultzatzaile bat abian jartzeko nahia agertu zen, handizalea eta estrategikoa izango zen proiektu bat, lankidetzari berriro indartuko zuena: 'Aukeren Proiektua' deitu genion. Jarduerak berriro planifikatu behar izan ziren, eta ekimen pizgarri horri erantzuna emango zioten baliabideak aurkitu behar izan genituen; gogoetako helburu estrategikoetan oinarrituta, 2010eko jarduera nagusi bilakatu zen, eta, 2011. urtean ere, gure baliabideetako askoren eragile da.

Pertsonei dagokien prozesuan, gure elkartearen ikuspuntutik edozein elkartearentzat oinarritzeko den prozesu horretan, taldekoak diren pertsonen garapenerako plana lantzen jarraitu dugu, guztien gaitasunaz baliatzeko, bakoitzaren erronkak zehazteko eta kohesio handiagoa lortzeko aukera ematen baitu, ikuspegi partekatua go batetik eta elkarren arteko ezagutza handiagoa oinarritzat hartuta.

Lankidetzaren dinamizazioa

Sektorearen erronka estrategikoei lankidetzan oinarritutako erantzuna emateko, interes komunak dituzten taldeen identifikazioa eta sustapenean lanean ari da elkartea, lankidetzari proiektuak abian jar ditzaten aeronautikaren eta espazioaren sektorearentzat estrategikoak diren esparruetan eta beste esparru batzuetan, teknologiaren eta berrikuntzaren esparruan, kudeaketaren kalitatearen eta hobekuntzaren esparruan, eta nazioartekotasunean, besteak beste.

Interes komunak dituzten talde horiek identifikatzeko, hiru jarduerak egin ditugu aurrez, prozesu horretan aurrera egiteko ezinbestekoak direla uste baitugu, eta, identifikazioarekin batera, 'lankidetzaren piramidea' deritzona osatzen baitute:

- Informazio estrategikoa biltzea eta zabaltzea.
- Erronka estrategikoak eta sinergia potentzialak identifikatzea.
- Identifikatutako sinergia potentzialak ebaluatzea.

2010. urtean, 'Aukeren Proiektua' abiaraztean lankidetzari talde horien identifikazio iturri nagusi bilakatu da dagoeneko. Proiektu horrek lankidetzan oinarritutako proiektu berrien eta sinergia eta itun berrien ernamun izan nahi du hedatuta dagoen esparruetan, eta horren adierazgarri da gaur egun duen parte-hartze masiboa.

Gaur egun garatzen ari diren lankidetzako proiektu bultzatzaile batzuk zehazteaz gain, aeronautikako eredu onenetako batzuekin alderatzeko tresna bat abian jartzea erabaki da (benchmarking), gure bazkideak garatzen ari diren hornidura katearen egoeraren eta gaur egun bikainak diren hornidura kateen arteko hutsuneak hautemateko.

Proiektu emblematikoa horrekin batera, 2010. urtean, parte-hartze aktiboa izan dugu EACPn (European Aerospace Clusters Partnership). Europan, bi proiektu jarri dira abian, bata, prestakuntzaren eta hezkuntzaren arlokoa eta, bestea, orokorragoa, enpresen lehiakortasuna hobetzea xede duena; eta aliantza horren Finantziarazio Lan Taldea zuzentzen laguntzea ere erabaki da.

Kudeaketaren esparruan –eta balio sektorialaren katea osatzen duten eragilean artean merkataritza komunikazioa hobetzeko–, jarraipena eman zaio 2009. urtean Hélice Fundazioak Andaluziako kluster aeronautikoan kokatutako enpresek in egindako lanari. Horrela, informazioa bildu da eta eremu horretan gure bazkideek duten egoera aztertu da, ardatz sektorial bat –AERONET proiektua– sortzeko aukera aztertzeko asmoz; Europako enpresa eragile nagusiek azaldu duten interesak ere bultzatu du ekimen hori. Lanean gogoz aritu gara, gure bazkideek kudeaketaren kalitatearen arloan eskualde mailan

With the aim of improving its client-focused efficiency and operating efficacy, based on people, since 2009, HEGAN has operated according to process management principles. In the last annual report, we published the processes map that was drawn up as a result of the initial processes identification exercises and in this year's report we present a new improved version whereby our intention is to comply better with the aims and objectives set out in our strategic reflection 2009-2012.

Strategy and People

During the year 2010, while the sector attempted to withstand the hardships of the economic crisis, there arose within the Executive Committee the desire to develop an ambitious and strategic project for the sector in order to revive a spirit of cooperation within it. We will call this the "Opportunities Project". It was necessary to propose a new programme of activities and to search for resources capable of responding to this inspirational initiative. Based on the strategic objectives of the Strategic Reflection 2009-12, this became the key activity in 2010 and today, in 2011, is still mobilising many of our resources.

In reference to People's Process, which is, in our opinion, a key asset for any organisation, we have continued to pursue a plan that takes advantage of the capabilities of every member of our team, to determine the challenges faced by each one, and to increase the sense of cohesion with a more widely shared vision and greater mutual recognition.



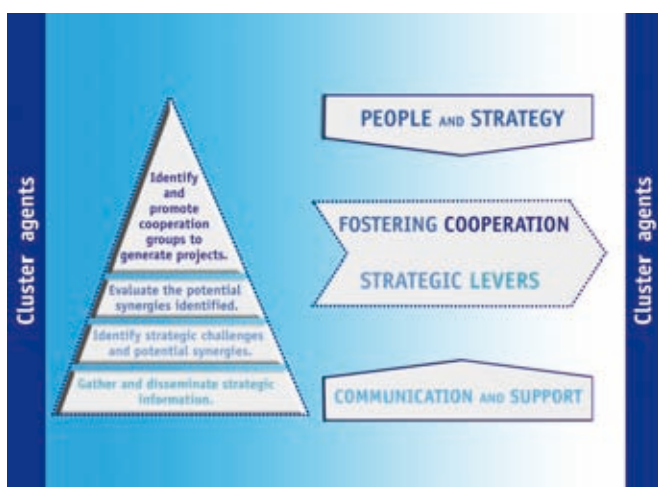
Opportunities Project

Fostering Cooperation

In order to respond to the strategic challenges of the sector in a spirit of collaboration, the Cluster Association is working in order to identify and promote groups with common interests leading to cooperation projects in strategic areas for the aeronautics and space sector, and in others such as technology and innovation, quality and management innovation and internationalisation.

And in order to identify these common interest groups, we are pursuing three preliminary steps that are advisable from our viewpoint in order to make progress in this process and which, together with its identification, make up the so-called "cooperation pyramid":

- Obtain and disseminate strategic information,
- Identify strategic challenges and potential synergies.
- Assess the potential synergies identified.



HEGAN Processes map

Already in 2010, the launching of the "Opportunities Project" represented the main source of the identification of these cooperation groups. The aim of this project is to plant the seed of new collaboration projects involving new synergies and alliances in the different areas in which it is being deployed as shown by the large-scale participation levels it is enjoying.

In addition to determining several leading cooperation projects currently underway, it has been decided to launch a benchmarking tool with some of the best examples in the aeronautical sector in order to detect any gaps between the situation of the supply chain developed by our associate companies and one of today's excellent supply chains.

Besides this emblematic project, in 2010 we took an active part in the EACP (European Aerospace Clusters Partnership), launching two European projects. One was in the field of training and the education system and another was of a more general nature, designed to improve the competitiveness of companies. It was also decided to co-lead the Financing Workgroup of this alliance.

In the field of management, and in order to improve communications at a commercial level between agents in the sector value chain, the work carried out by the Fundación Hélice in 2009 with companies located in the Andalusian

liderazgo regional en el área de la calidad de la gestión por parte de nuestros asociados, logrando que en 2011 Bilbao pudiese albergar de nuevo la reunión del Comité Europeo de la Calidad –EAQG–.

Y no podemos dejar de destacar la amplia actividad en el ámbito de la internacionalización formando parte de la delegación Institucional que visitó Brasil a principios de año, con la ya clásica presencia de HEGAN y sus asociados en AEROMART (Toulouse) o impulsado la visita de contratistas estratégicos como el caso de la empresa belga ASCO.

Palancas Estratégicas

La Reflexión Estratégica 2009-12 definió una serie de actuaciones cuyos objetivos estratégicos servían como palancas para cimentar las capacidades y recursos de las empresas y otras para mejorar el papel de de la asociación como impulsora del cluster natural. Estas actuaciones también facilitan la creación de grupos en cooperación siguiendo los niveles de la ‘pirámide’, aunque de un modo indirecto.

Actuaciones para mantener un sistema de Inteligencia Competitiva (SICC) útil, actualizado y potente para ayudar a la toma de decisiones de nuestros asociados o acciones para establecer una fuerte red de relaciones y atender un sinfín de demandas institucionales y empresariales, han ocupado buena parte de nuestro tiempo en 2010.

Del mismo modo, se continúa trabajando sobre el pilar de todo cluster: las personas. Acciones con las universidades y centros de formación, con las agencias encargadas de la atracción de talento o con profesionales del desarrollo profesional de las personas, se vieron completadas con la participación de la práctica totalidad de nuestros socios en el foro que mantuvo Stephen Covey en Bilbao en junio. El Dr. Covey, reconocido mundialmente como el mayor experto en liderazgo, eligió Bilbao en su paso por España y la asociación decidió ubicar la Asamblea General en esa fecha y no dejar pasar la oportunidad de un evento de plazas muy limitadas.

Comunicación y Soporte

Finalmente, y unido al no poco importante proceso de administración y gestión de la propia asociación, hemos seguido dedicando horas de trabajo a la tarea de informar, promocionar, influir y dar a conocer la realidad del sector aeronáutico y espacial de Euskadi: su dimensión, sus capacidades, sus fortalezas, su alcance.. y su contribución al desarrollo de la sociedad.

En 2010 se ha invertido un esfuerzo notable en realizar notas de prensa positivas, actualizar nuestra web, o en seleccionar soportes de comunicación de interés para el sector y los asociados.

Estas acciones nos han ayudado a intercambiar buenas prácticas con otras regiones del mundo y sobre todo, a facilitar a los asociados la internacionalización y la cooperación, darles visibilidad en el mismo, cuidar nuestra imagen de marca, adquirir capacidad de influencia y construcción y mostrar la imagen de sector competitivo y activo que nuestros asociados han ido levantando con su esfuerzo, y profesionalidad.

Para terminar, nos gustaría agradecer a dos personas subcontratadas por HEGAN en 2010 su compromiso con la asociación y nuestro equipo: Ana Villate y Adeli Gutiérrez, que han aportado su buen hacer en las áreas de estrategia e innovación y comunicación e imagen, respectivamente.

duten lidergoa sendotzeko, eta 2011. urtean, Kalitaterako Europako Taldearen –EAQG– bilera berriro Bilbon izatea lortu da.

Nazioartean egin den lan izugarria ere azpimarratu behar dugu: urte hasieran, Brasilen izan zen erakunde ordezkaritzan parte hartu genuen; ohi bezala, HEGAN eta HEGANeko bazkideak AEROMARTen izan ziren (Tolosa, Frantzia); eta kontratista estrategikoen bisita ere sustatu zen, Belgikako ASCO enpresarena, adibidez.

Adimen lehiakorrak erabakiak zuzen hartzeko beharrezkoa den ezagutza eskaintzea du helburu. Prozesu horrek sektorearen ezagutza eta etorkizuneko gertakariei aurrea hartzea hartzen ditu barnean. Tresna eta teknika berezien bidez, hainbat iturritatik datuak ateratzen dira, informazioa garbitzen da, identifikatutako arlo interesgarrien arabera egituratzen da eta irakurketa eraginkorra eta praktikoa egiteko prestatzen da. HEGANek, EJVren ekimenari esker, eta Teknologiarako Euskal Sareko teknologia zentroen laguntzaz, klusterraren adimen lehiakorren sistema garatu du (SICC); duela hiru urtetik hona egunkarian egunero zati zabal bat kontratatuta du, nahiko sektoriala dena, eta bazkideentzat intranet pribatua du, informazio garrantzitsu eta interesgarria eskaintzen duena.

Palanka estrategikoak

2009-12rako Gogoeta Estrategikoak hainbat jarduketa zehaztu zituen; jarduketa horien helburu estrategiko batzuk palanka gisa erabili ziren enpresen gaitasunak eta baliabideak funtsatzeko, eta beste batzuk, berriz, elkarrekin kluster naturalaren sustatzaile gisa duen garrantzia indartzeko. Jarduketa horiek lankidetzan oinarritutako lan taldeak sortzea ere errazten dute, ‘piramidearen’ maila jarraituz, zeharka bada ere.

Gure bazkideei erabakiak hartzen laguntzeko Adimen Lehiakorren Sistema (SICC) baliagarri, eguneratu eta indartsu bat izateko jardueri, harreman sare indartsu bat ezartzeko ekintzei, eta erakundearen eta enpresen amaigabeko eskaerei erantzuteari zuzendu diegu 2010ean gure lanaldiaren zatirik handiena.

Era berean, kluster ororen zutabea lantzen jarraitu dugu: pertsonak. Unibertsitateekin eta prestakuntza zentroekin, talentua erakartzeko ardura duten agentziekin edota pertsonen garapen profesionalaz arduratzen diren profesionalekin egin ziren ekintzak, eta ekainean, Bilbon, Stephen Coveyk zuzendu zuen foroan ia gure bazkide guztiak izan zuten parte-hartzearekin osatu ziren jarduerak. Covey doktoreak, lidergoari buruzko gaietan mundu osoan ezaguna den aditu horrek, Espainiara egin zuen bisitan, Bilbo aukeratu zuen, eta Batzar Nagusia egun horretan egitea erabaki zuen elkarrekin, partaide kopuru finkoko batzar hori egiteko aukera ez galtzeko.

Komunikazioa eta euskarria

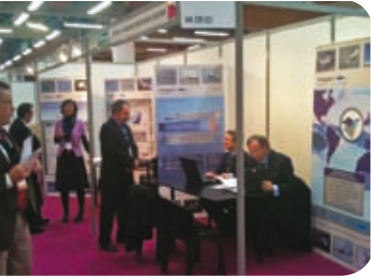
Azkenik, eta elkarrekin administrazio eta kudeaketa prozesu garrantzitsuekin lotuta, informatzen, sustatzen eta eragina izaten jarraitu dugu, eta baita Euskadiko aeronautikaren eta espazioaren sektorea ezagutarazten ere: tamaina, gaitasunak, sendotasunak, helmena... edota gizartearen garapenari egiten dion ekarpena.

2010. urtean, aparteko lana egin da prentsa ohar baikorrak lantzen, gure web orria eguneratzen edota sektorearentzako eta bazkideentzako interesgarriak diren komunikazio euskarriak aukeratzen.

Ekintza horiek munduko beste eskualdeekin praktika onak partekatze aukera eman digute, eta baliagarriak izan dira, batez ere bazkideei nazioartekotasuna eta lankidetzat errazteko, nazioartean ezagutarazteko, gure marka-irudia zaintzeko, erakartzeko eta eraikitze gaitasuna izateko eta gure bazkideek euren ahaleginarekin eta profesionaltasunarekin lortu duten sektorearen irudi lehiakorra eta aktiboa erakusteko.

Amaitzeko, HEGANek 2010ean azpikontrataturako bi pertsonari, Ana Villateri eta Adeli Gutiérrezi, hain zuzen, gure esker ona adierazi nahi genieke, gure elkarte eta lan taldearekin hartutako konpromisoagatik eta, hurrenez hurren, estrategia eta berrikuntzaren arloan eta komunikazio eta irudiaren arloan egin duten lan bikainarengatik.





AEROMART 2010

Aeronautics cluster has continued. In this way, information on the situation of our associate companies in this field was gathered and analysed with a view to the possible creation of a sector hub (AERONET project) an initiative that was put into motion due to the interest of a number of leading European companies. We also continued to work intensively in order to consolidate our position as regional leader in the area of quality management on behalf of our associate companies. As a result, in 2011, Bilbao may host the next meeting of the European Quality Committee –EAQG–.

Attention should also be drawn to the widespread activities of our associates in the area of internationalisation. We took part in the institutional delegation that visited Brazil early in the year, with the now traditional presence of HEGAN and its associate members at AEROMART (Toulouse). Efforts were also made to promote the visits of strategic contractors as was the case of the Belgian company ASCO.

Strategic Levers

The 2009-12 Strategic Reflection defined a series of actions, the strategic aims of which would be used to strengthen the capabilities and resources of our companies and to improve the role of the Association as the promoter of the natural cluster. Although not directly, these actions also facilitated the creation of cooperation groups following the different levels of the “pyramid”.

Most of our time in 2010 was employed in pursuing actions designed to maintain an updated and powerful system of useful Competitive Intelligence (SICC). This was done in order to help our associate members in their decision-making process and to establish a strong network of relations and attend to an endless number of demands from our institutions and business community.

Likewise, we continue to work on the basic building block of any cluster association: People. The association pursued a number of activities organised with universities and training centres, with agencies responsible for attracting talent, or with teaching personnel responsible for the professional development of our workers, culminating in the participation of virtually all our members at the Stephen Covey forum in Bilbao in June. Dr. Covey, recognised throughout the world as a leading expert in leadership, chose Bilbao to give two talks during his visit to Spain. The association decided to hold the General Assembly earlier the same date enabling members to attend this exclusive and limited assistance.



Stephen Covey in Bilbao



Communication and Support

Finally, and together with the no less important administrative and management tasks of the association, we have continued to dedicate many hours of work to the task of informing, promoting, influencing and disseminating the situation of the aeronautics and space sector of the Basque Country: its dimensions, its capabilities, its strengths, its scope and its contribution to the development of our society.

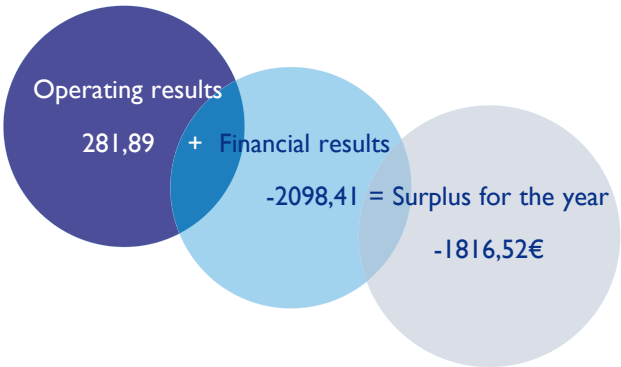
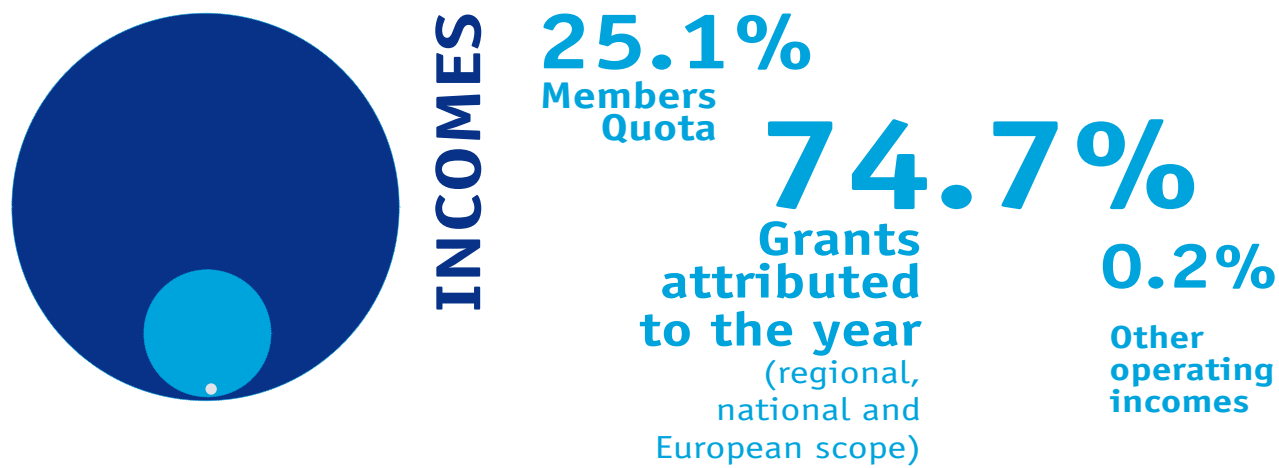
In 2010, considerable effort was made in the preparation of upbeat press releases, the modernisation of our website and in the selection of publicity supports of interest to the sector and our associate members.

These actions have helped us to exchange good practices with other regions of the world for the benefit of our associate members in their work of internationalisation and cooperation, to make them more visible, to look after our trademark image, acquire the capacity to influence and build and to show the image of a competitive and active sector which our associate members have created with their effort and professionalism.

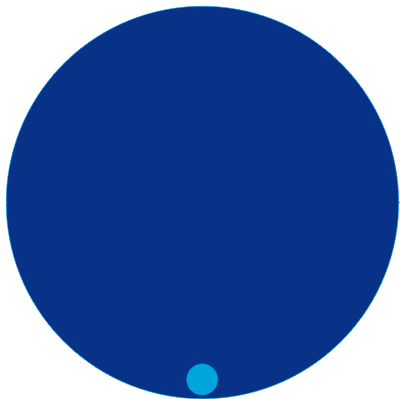
Finally, we would like to thank two people subcontracted by HEGAN in 2010 for their commitment to the association and our team: Ana Villate and Adeli Gutiérrez, who carried out an excellent job on Strategy and Innovation, and Communication and Image tasks, respectively.

Annual Accounts

Profit and Loss accounts

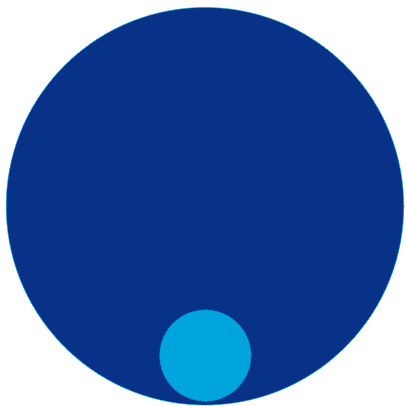


Balance sheet



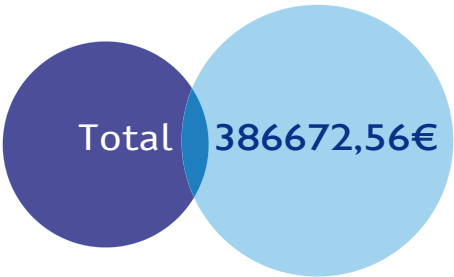
ASSETS

6%
Non
Current
Assets
94%
Current
Assets



NET ASSETS
AND
LIABILITIES

19%
Net
Assets
81%
Current
liabilities





Main activities of members

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4

Aerostructures

Aeroestructuras
Aire egiturak



AIRBUS A380



Large aircraft

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
ALTRAN	Weights and mass engineering	AIRBUS	AIRBUS	A30X
ACITURRI	Stringer and coatings.	AIRBUS MILITARY	AIRBUS	A320
ACITURRI	Landing gear door.	AIRBUS MILITARY	AIRBUS	A320 Family
ACITURRI	Section 18 structural assembly.	AIRBUS MILITARY	AIRBUS	A320 Family
AERNOVA	Main landing gear doors / Elevator / leading edges / S18 covers / box spars HTTP (composite).	AIRBUS	AIRBUS	A320
ALESTIS	BBAA HTP & VTP.	ARIES COMPLEX	AIRBUS	A320
ALESTIS	TIP's HTP.	AIRBUS	AIRBUS	A320
ALESTIS	Panels and Formers S18 / HTTP Box.	AIRBUS MILITARY	AIRBUS	A320
ALESTIS	TTP's	AERNOVA	AIRBUS	A320
ALFA MICROFUSION	Elementary parts Section 18 (Lost-wax process in aluminium, machining and painting)	AIRBUS SAS	AIRBUS	A320
ALFA MICROFUSION	Elementary parts Section 18 (Lost-wax process in aluminium)	TAI	AIRBUS	A320
ALFA MICROFUSION	Elementary parts Section 18 (Lost-wax process in aluminium)	AIRBUS MILITARY	AIRBUS	A320
ALFA MICROFUSION	Elementary parts Section 18 (Lost-wax process in aluminium)	ALESTIS	AIRBUS	A320
BURULAN	Manufacture of components, surface treatments, assemblies.	AERNOVA	AIRBUS	A320
CTA	Service life extension tests (ESG) of MLG door, NLG door elevator and HTTP center joint	AIRBUS MILITARY	AIRBUS	A320
CTA	Service life extension tests (ESG) of OUTB-FLAP	AIRBUS ALEMANIA	AIRBUS	A320
METRALTEC	Manufacture and assembly of elements (Sheet metal working, machining, heat and surface treatments, painting)	FIBERTECNIC	AIRBUS	A320
SENER	Removal of inserts from leading edge.	AIRBUS	AIRBUS	A320
ACITURRI	Leading edge of HTP assembly	AIRBUS MILITARY	AIRBUS	A330
ACITURRI	Passenger door structural assembly	AIRBUS MILITARY	AIRBUS	A330
AERNOVA	Leading edge panels HTTP / Karman fairings / Elevator coatings (composite)	AIRBUS	AIRBUS	A330
ALESTIS	TIP's HTTP	AIRBUS MILITARY	AIRBUS	A330
ALESTIS	PAX Door	AIRBUS	AIRBUS	A330
ALFA MICROFUSION	Elementary parts (Lost-wax process in aluminium, machining and painting)	AIRBUS SAS	AIRBUS	A330
ACITURRI	Leading edge of horizontal stabilizer assembly	AIRBUS MILITARY	AIRBUS	A340
ACITURRI	HTP Tips	AIRBUS MILITARY	AIRBUS	A340
ACITURRI	Passenger door structural assembly	AIRBUS MILITARY	AIRBUS	A340
AERNOVA	Leading edge panels HTTP / Karman fairings / Elevator coatings (composite)	AIRBUS	AIRBUS	A340
ALESTIS	TIP's HTTP	AIRBUS MILITARY	AIRBUS	A340
ALESTIS	PAX Door	AIRBUS	AIRBUS	A340
ALESTIS	Ribs HTP	AIRBUS	AIRBUS	A340
SENER	Fatigue analysis and damage tolerance	AIRBUS	AIRBUS	A340/600

Large aircraft



BOEING 747-8

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
ACITURRI	VTP	AIRBUS MILITARY	AIRBUS	A350 XWB
ACITURRI	Internal structure of S19	AIRBUS MILITARY	AIRBUS	A350 XWB
AERNNOVA	Conceptual and detailed design and manufacture of horizontal stabiliser and elevator - Risk Partner	AIRBUS	AIRBUS	A350 XWB
AERNNOVA	Conceptual and detailed design and manufacture of MLG Pressure bulkhead	AIRBUS	AIRBUS	A350 XWB
ALESTIS	Belly Fairing - Risk Partner	AIRBUS	AIRBUS	A350 XWB
ALESTIS	S19.1 - Risk Partner	AIRBUS	AIRBUS	A350 XWB
ALTRAN	Diseño BF A350	ALESTIS	AIRBUS	A350 XWB
ALTRAN	Desarrollo S12	AIRBUS	AIRBUS	A350 XWB
ALTRAN	Structural Dimensioning Cockpit	AIRBUS	AIRBUS	A350 XWB
ALTRAN	Design wing Ailerons and spoilers	AIRBUS	AIRBUS	A350 XWB
ALTRAN	Composite manufacturing tool design VTP A350	ACITURRI	AIRBUS	A350 XWB
ARATZ	Composite Tooling	AIRBUS	AIRBUS	A350 XWB
BURDINBERRI	WING STRINGER MOULDS	REDUCTIA AEROSPACE	AIRBUS	A350 XWB
BURDINBERRI	VTP CURING TOOLS	ACITURRI	AIRBUS	A350 XWB
BURDINBERRI	VTP STRINGER CURING TOOLS	ACITURRI	AIRBUS	A350 XWB
BURDINBERRI	HTP BEARING RIBS RTM CURING TOOLS	AERNNOVA	AIRBUS	A350 XWB
BURDINBERRI	S19 OMEGA DEBULKING CASINGS	REDUCTIA AEROSPACE	AIRBUS	A350 XWB
CTA	MLGB Panel Certification Test	AERNNOVA	AIRBUS	A350 XWB
CTA	HTP Panel Certification Tests	AERNNOVA	AIRBUS	A350 XWB
CTA	Panel Joint Configuration Taste	AIRBUS	AIRBUS	A350 XWB
CTA	Fuel Tank Access Cover Debris Impact Test	AIRBUS	AIRBUS	A350 XWB
CTA	S19 Panel Certification Tests	AIRBUS	AIRBUS	A350 XWB
INGEMAT	Design of assembly jigs and fixtures for hybrid structure of the Belly Fairing	ALESTIS	AIRBUS	A350 XWB
INGEMAT	Turnkey supply of automated handling and demoulding fixture for all stringers moulds of the VTP	ACITURRI	AIRBUS	A350 XWB
SENER	Design, construction, installation, transport and start up of the system in which the carbon fibre laminates of the wing stringer positioning line are generated.	ARITEX	AIRBUS	A350 XWB
SENER	Conceptual design of the Belly Fairing	AIRBUS	AIRBUS	A350 XWB
SENER	Engineering of the front area of the Belly Fairing and pre-plateau stage of section 19.1	ALESTIS	AIRBUS	A350 XWB
SENER	Conceptual design of the landing gear. Pre-plateau stage	AIRBUS	AIRBUS	A350 XWB
SENER	Belly Fairing A 350xwb front area. Preliminary design	ALESTIS	AIRBUS	A350 XWB
SENER	Support for 19.1 A350 XWB engineering. Preliminary design	ALESTIS	AIRBUS	A350 XWB
SENER	Design and production of HTP assembly stations 70 and 71	THYSSEN GERMANY	AIRBUS	A350 XWB
SISTEPLANT	Engineering and industrialisation of A350 Belly Fairing Assembly Line	ALESTIS	AIRBUS	A350 XWB

Large aircraft

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
ACITURRI	"T" profiles and fittings	AIRBUS MILITARY	AIRBUS	A380
ACITURRI	Wing Ribs and HTP, Tail rudder	AIRBUS MILITARY	AIRBUS	A380
AERNNOVA	Design and manufacture of the internal metal structure of section19 -Risk partner-	AIRBUS	AIRBUS	A380
AERNNOVA	Design and manufacture of the leading and trailing edge and of their joints to boxes -Risk partner-	AIRBUS	AIRBUS	A380
AERNNOVA	Leading edge HTTP / Stiffeners and angle bars S19.1 / trailing edge covers HTTP (composite)	AIRBUS	AIRBUS	A380
AIBE	Design and manufacture of fastening systems for machining processes and control tools	ACITURRI	AIRBUS	A380
ALESTIS	MLGD / S19.1 / Rear Fairing - Risk Partner	AIRBUS	AIRBUS	A380
ALESTIS	Belly Fairing	AIRBUS MILITARY	AIRBUS	A380
ALTRAN	Ingenieria de soporte HNC Fan Cows	AIRBUS	AIRBUS	A380
ASTORKIA	Structural components	AERNNOVA	AIRBUS	A380
BURULAN	Manufacture of components, surface treatments, assemblies	AERNNOVA	AIRBUS	A380
CTA	VTP Fitting #1	AERNNOVA	AIRBUS	A380
CTA	Gear Rib Certification Test	AIRBUS UK	AIRBUS	A380
CTA	VTP Fitting, cut out and Screw Jack Certification test	AERNNOVA	AIRBUS	A380
CTA	Pylon Engine Rear Attachment Certification Test	AIRBUS FRANCE	AIRBUS	A380
NOVALTI	Landing gear trap	AIRBUS	AIRBUS	A380
NOVALTI	Belly Fairing components	AIRBUS	AIRBUS	A380
NUTER	Structural components	AERNNOVA	AIRBUS	A380
SENER	Development of main landing gear traps: justification of strength corresponding to new flight mode groups up to the test support	AIRBUS	AIRBUS	A380
SENER	Development of Belly Fairing and support work	AIRBUS	AIRBUS	A380
SENER	Detailed design of parts such as the elevator for the cargo version	AIRBUS	AIRBUS	A380
SISTEPLANT	Re-engineering of manufacturing processes, handling and assembly	EADS-MTA	AIRBUS	A380
WEC	Structural sheet metal parts for Section 19.1	ITD	AIRBUS	A380
WEC	Engine Nacelle parts	AIRCELLE	AIRBUS	A380
ALTRAN	Supplier management T2	AIRBUS	AIRBUS	AIRBUS Families
ALTRAN	Development of processes and materials HTP and S19	AIRBUS	AIRBUS	AIRBUS Families
ARATZ	Assembly Tooling	AIRBUS	AIRBUS	AIRBUS Families
AYZAR	Heat treatments	ARATZ	AIRBUS	AIRBUS Families
AYZAR	Heat treatments	BURDINBERRI	AIRBUS	AIRBUS Families
AYZAR	Heat treatments	ACITURRI	AIRBUS	AIRBUS Families
Grupo TTT	Heat and surface treatments	SEVERAL	AIRBUS	AIRBUS Families
Grupo TTT	Heat and surface treatments	SONACA	AIRBUS	AIRBUS Families
LTK Grupo	Special Aerospace Logistics: Transport, Stock, Quality control...	AIRBUS	AIRBUS	AIRBUS Families

Large aircraft

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
QAES / GLOBAL Q	Supervision of mass production programmes and final adjustments of suppliers, Quality management & Verification	AIRBUS	AIRBUS	AIRBUS Families
QAES / GLOBAL Q	Supplier audits and Verification	AERNNOVA	AIRBUS	AIRBUS Families
QAES / GLOBAL Q	Supplier audits and Verification	ACITURRI	AIRBUS	AIRBUS Families
QAES / GLOBAL Q	Supplier audits and Verification	ALESTIS	AIRBUS	AIRBUS Families
SISTEPLANT	Improvement in the efficiency of installations	ARESA	AIRBUS	AIRBUS Families
TEY	Heat treatments	AIRBUS MILITARY	AIRBUS	AIRBUS Families
TEY	Heat treatments	CESA	AIRBUS	AIRBUS Families
ACITURRI	Rudder Components	AIRBUS MILITARY	BOEING	737
AERNNOVA	Conceptual engineering Wing Insparr Ribs and structures for sections 11, 12 and 42	BOEING	BOEING	747-8I/F
AEROMECE	Structural door components. Contract with Latecoere for the manufacture of 44 types of door parts	LATECOERE	BOEING	787
ALESTIS	Aileron	AIRBUS MILITARY	BOEING	777
ALESTIS	Flaperon	AIRBUS MILITARY	BOEING	777
ALTRAN	Development Pylon Flight test	PRATT & WHITNEY	BOEING	747
ASTORKIA	Structural components	SEVERAL	BOEING	787
SENER	Fuel access covers (FTAC)	BOEING	BOEING	787
SENER	HTP box	BOEING	BOEING	787
SISTEPLANT	Re-engineering of manufacturing, handling and assembly operations. Rudder	EADS-MTA	BOEING	737
CTA	Fire certification tests of interior materials	AERONÁUTICA DE GESTIÓN	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	MAZEL INGENIEROS	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	RELATS	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	RADIAL	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	L&L	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	JCB AERO	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	AIR NOSTRUM	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	VUELING	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	PMV INDUSTRIES	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	COMPOSITE INDUSTRIES	SEVERAL	Airlines
CTA	Fire certification tests of interior materials	ZODIAC AEROSPACE	SEVERAL	Airlines



BURDINBERRI



SENER



BURULAN



EMBRAER 170

Regional aircraft

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
AERNNOVA	Spoiler / interiors (composite)	EADS-SOGERMA	ATR	ATR 42
AERNNOVA	Manufacturing of complete Tail section (vertical and horizontal stabilisers) and elevators	BOMBARDIER	BOMBARDIER	CRJ700/900
ASTORKIA	Structural components	AERNNOVA	BOMBARDIER	CRJ700/900
BURULAN	Manufacturing of components, surface treatments, assemblies	AERNNOVA	BOMBARDIER	CRJ700/900
Grupo TTT	Heat and surface treatments	SEVERAL	BOMBARDIER	CRJ700/900
METRALTEC	Manufacture of elementary parts and assembly (sheet metal, machining, heat and surface treatments, painting)	AERNNOVA	BOMBARDIER	CRJ700/900
NUTER	Components	AERNNOVA	BOMBARDIER	CRJ700/900
ACITURRI	Composite material parts	AERNNOVA	BOMBARDIER	CRJ700/900
AERNNOVA	Conceptual Design & Manufacture of Central Wing Box (composite) - Risk Partner	BOMBARDIER	BOMBARDIER	CSeries
AERNNOVA	Design Tail Cone (composite)	BOMBARDIER	BOMBARDIER	CSeries
BURDINBERRI	C Series Centre Wing Box Curing Tools	AERNNOVA	BOMBARDIER	CSeries
BURULAN	Manufacture of components, surface treatments, assemblies	AERNNOVA	BOMBARDIER	CSeries
CTA	C Series CWT (Central Wing Tank) Fire certification tests	AERNNOVA	BOMBARDIER	CSeries
AERNNOVA	Design and manufacture of complete wings-Risk Partner	EMBRAER	EMBRAER	ERJ135/140/145
AERNNOVA	Design and manufacture of nacelles - Risk Partner	EMBRAER	EMBRAER	ERJ135/140/145
AERNNOVA	Design and manufacture of wing to fuselage fairings -Risk Partner	EMBRAER	EMBRAER	ERJ135/140/145
ALESTIS	Wing's 4th Station	AERNNOVA	EMBRAER	ERJ135/140/145
METRALTEC	Manufacture of elementary parts and assemblies (sheet metal, machining, heat treatment, surface treatment, painting)	AERNNOVA	EMBRAER	ERJ135/140/145
NUTER	Structural components	AERNNOVA	EMBRAER	ERJ135/140/145
QAES / GLOBAL Q	Verification	ALESTIS	EMBRAER	ERJ135/140/145
ACITURRI	Structural fittings equipped with ball and socket joints	AERNNOVA	EMBRAER	170/175/190/195
AERNNOVA	Design and manufacture of complete Tail section (vertical and horizontal stabilisers), rudder and elevators - Risk Partner	EMBRAER	EMBRAER	170/175/190/195
AERNNOVA	Design and manufacture of rear fuselage - Risk Partner	EMBRAER	EMBRAER	170/175/190/195
AEROMECA	Door of structural components	LATECOERE	EMBRAER	170/175/190/195
AEROMECA	Door structural components	LATECOERE	EMBRAER	170/175/190/195
ALESTIS	Winglet	EMBRAER	EMBRAER	170/175/190/196
ALESTIS	Wingstub	EMBRAER	EMBRAER	170/175/190/197
BURULAN	Manufacture of components, surface treatments, assembly, ball joint stapling	AERNNOVA	EMBRAER	170/175/190/195
LTK Grupo	Special Aerospace Logistics: Transport, Stock, Quality control...	ALESTIS	EMBRAER	170/175/190/195
METRALTEC	Manufacture of elementary parts and assemblies (sheet metal, machining, heat treatments and surface treatments, painting)	AERNNOVA	EMBRAER	170/175/190/195
NUTER	Structural components	AERNNOVA	EMBRAER	170/175/190/195
ASTORKIA	Structural components	AERNNOVA	EMBRAER	EMBRAER Families
Grupo TTT	Heat and surface treatments	AERNNOVA	EMBRAER	EMBRAER Families
Grupo TTT	Heat and surface treatments	SONACA	EMBRAER	EMBRAER Families
MESIMA	Materials management and supply	BURULAN	EMBRAER	EMBRAER Families
MESIMA	Materials management and supply	METRALTEC	EMBRAER	EMBRAER Families
SISTEPLANT	Aerospace parts process improvement	ACITURRI	SEVERAL	SEVERAL

General and Business aviation



AEROVISION FULMAR

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
AEROVISION	Design and Manufacturing of mini Unmanned Air Systems (UASs)	Itself	AEROVISION	FULMAR
METRALTEC	Manufacturer of elementary parts (sheet metal, machining, heat treatment, surface treatments, painting)	TAM	BOMBARDIER	LEARJET 85
ACITURRI	Elevators and HTTP	EADS	DASSAULT	FALCON 7X
AEROMECA	Structural components front section	LATECOERE	DASSAULT	FALCON 7X
ALESTIS	BBAA HTTP - Risk Partner	AIRBUS MILITARY	DASSAULT	FALCON 7X
ARATZ	Assembly tools	DASSAULT	DASSAULT	FALCON Family
Grupo TTT	Heat and Surface treatments	SONACA	DASSAULT	FALCON Family
SISTEPLANT	Re-engineering of manufacturing, handling and assembly operations: HTTP	EADS	DASSAULT	FALCON 7X
AERNNOVA	Design and manufacture of complete wings - Risk Partner	EMBRAER	EMBRAER	LEGACY Family
AERNNOVA	Design and manufacture of nacelles -Risk Partner	EMBRAER	EMBRAER	LEGACY Family
AERNNOVA	Design and manufacture of wing to fuselage fairings -Risk Partner	EMBRAER	EMBRAER	LEGACY Family
AERNNOVA	Design and manufacture of rear fuselage - Risk Partner	EMBRAER	EMBRAER	LINEAGE 1000
ALESTIS	Central Fuselage - Risk Partner	EMBRAER	EMBRAER	LEGACY450/500
ALESTIS	Empennage - Risk Partner	EMBRAER	EMBRAER	LEGACY450/500
ALESTIS	Assemblies Set - Risk Partner	EMBRAER	EMBRAER	PHENOM 100/300
ALFA MICROFUSION	Elementary parts (lost wax casting, machining)	IAI	GULFSTREAM	GULFSTREAM Families
AERNNOVA	Build to print of Fully equipped Wings	HAWKER BEECHCRAFT	HAWKER BEECHCRAFT	KING AIR, BARON, BONANZA
AERNNOVA	Build to print of Fully equipped Wings	HAWKER BEECHCRAFT	HAWKER BEECHCRAFT	PREMIER IA, 400XP
ALTRAN	Development Central Wing	SOLAR IMPULSE	SOLAR IMPULSE	PT60M
ALTRAN	Mission simulation	SOLAR IMPULSE	SOLAR IMPULSE	PT60M

Defence aviation

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
ALESTIS	Assembly tasks	AIRBUS MILITARY	AIRBUS MILITARY	A330MRTT
ALTRAN	Assembly engineering	AIRBUS	AIRBUS MILITARY	A330 MRTT
LTK Grupo	Special Aerospace Logistics: Transport, Stock, Quality control...	AIRBUS MILITARY	AIRBUS MILITARY	A330 MRTT
QAES / GLOBAL Q	Verification	QUALITAIRE	AIRBUS MILITARY	A330 MRTT
ACITURRI	Sponsons	DAHER-SOCATA	AIRBUS MILITARY	A400M
ACITURRI	Spar, Flap and Vanes	AIRBUS FRANCE	AIRBUS MILITARY	A400M
ACITURRI	Spar, Flap and Vanes	AIRBUS GERMANY	AIRBUS MILITARY	A400M
AERNNOVA	Stringers / tip HTTP / wing stringers (composite)	AIRBUS MILITARY	AIRBUS MILITARY	A400M
ALESTIS	Rear Cones - Risk Partner	AIRBUS MILITARY	AIRBUS MILITARY	A400M
ALESTIS	BBAA HTP	AIRBUS MILITARY	AIRBUS MILITARY	A400M
ALESTIS	Elevator	AIRBUS MILITARY	AIRBUS MILITARY	A400M
ALESTIS	Cowlings	AIRBUS MILITARY	AIRBUS MILITARY	A400M
ALTRAN	Nacelle fatigue analysis	AIRBUS	AIRBUS MILITARY	A400M
CTA	NLG DOOR Certification Tests	AIRBUS FRANCE	AIRBUS MILITARY	A400M



AIRBUS A400M

Defence aviation

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
LTK Grupo	Special Aerospace Logistics: Transport, Stock, Quality control...	AIRBUS MILITARY	AIRBUS MILITARY	A400M
QAES / GLOBAL Q	Configuration of Flight Test Center, Pre-FAL verification and development of versions & Product Configuration and Verification Management	AIRBUS MILITARY	AIRBUS MILITARY	A400M
QAES / GLOBAL Q	Supervision of suppliers of elementary parts, assemblies, composite and equipment & Product Verification	AIRBUS MILITARY	AIRBUS MILITARY	A400M
QAES / GLOBAL Q	Issuing of quality documentation and Correct Action Management & Quality Management and IPA Management	AIRBUS MILITARY	AIRBUS MILITARY	A400M
SENER	Fuel access covers (FTAC)	AIRBUS MILITARY	AIRBUS MILITARY	A400M
SENER	Definition of a new design for fuel access covers (FTAC)	AIRBUS MILITARY	AIRBUS MILITARY	A400M
SENER	HTTP box	AIRBUS MILITARY	AIRBUS MILITARY	A400M
SISTEPLANT	Lean Academy & Re-engineering of manufacturing operations, handling and assembly continuous flow and visual management - line 2 sheet metal + final processes	AIRBUS MILITARY	AIRBUS MILITARY	A400M
TEY	Heat treatments	AIRBUS MILITARY	AIRBUS MILITARY	A400M
ACITURRI	Central Box: structural assembly and equipment	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ACITURRI	Tip wings integration	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
AERNNOVA	Forward landing gear traps/ engine housings (composite)	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALESTIS	Center Wing	AIRBUS MILITARY	AIRBUS MILITARY	C212
ALESTIS	Rear & Central fuselage	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALESTIS	HTP / VTP	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALESTIS	Cockpit	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALESTIS	Sponsons	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALESTIS	Baggage Compartment	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALFA MICROFUSION	Elementary parts (Lost wax casting in aluminium)	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
BURDIN BERRI	CN-295 Rotodome curing tools	AIRBUS MILITARY	AIRBUS MILITARY	C295
Grupo TTT	Heat and surface Treatments	AIRBUS MILITARY	AIRBUS MILITARY	C295
LTK Grupo	Special Aerospace Logistics: Transport, Stock, Quality control...	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
QAES / GLOBAL Q	Issuing of quality documentation and Correct Action Management & Quality Management and IPA Management	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
QAES / GLOBAL Q	Supervision of suppliers of elementary parts, assemblies, composite and equipment & Product Verification	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
QAES / GLOBAL Q	Issuing of quality documentation & Quality Management	AIRBUS MILITARY	AIRBUS MILITARY	C295
SENER	Phase 4 of the Internal Noise Reduction Program	AIRBUS MILITARY	AIRBUS MILITARY	C295 Persuader
SISTEPLANT	Re-engineering of assembly operations: section integration	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
TEY	Heat treatments	AIRBUS MILITARY	AIRBUS MILITARY	CN235, C295
ALTRAN	Wing design and integration	EADS DSS	EADS DSS	UAV ATLANTE
ACITURRI	Composite components	AIRBUS MILITARY	EUROFIGHTER	TYPHOON
ACITURRI	Fairing flare gun manufacturing	AIRBUS MILITARY	EUROFIGHTER	TYPHOON
AERNNOVA	Wing covers, housings and conduits (composite)	EADS	EUROFIGHTER	TYPHOON
ALFA MICROFUSION	Elementary parts (Lost Wax Casting in aluminium)	EADS	EUROFIGHTER	TYPHOON

Defence aviation

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
CTA	EFA ART HALT tests	TECNOBIT	EUROFIGHTER	TYPHOON
METRALTEC	Manufacture of elementary parts (sheet metal, machining, heat treatment, surface treatment, painting)	FIBERTECNIC	EUROFIGHTER	TYPHOON
SISTEPLANT	Re-engineering of manufacturing, handling and assembly processes & Re-engineering of manufacturing, handling and assembly processes: Dass Pod components	EADS	EUROFIGHTER	TYPHOON
ALESTIS	Participation in P3Orion Conversion	AIRBUS MILITARY	LOCKHEED MARTIN	P-3 Orion
QAES / GLOBAL Q	Issuing of quality documentation and Correct Action Management & Quality Management and IPA Management	EADS	LOCKHEED MARTIN	P-3 Orion
ALTRAN	Flight test development and monitoring	INTA	INTA	UAV DIANA
ACITURRI	Pylon	AIRBUS MILITARY	SUKHOI	SU-30



SIKORSKY S-92

Helicopters

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	MODEL
AERNNNOVA	Lower structure manufacture	EUROCOPTER	EUROCOPTER	AS332 Super Puma
AERNNNOVA	Tail Cone manufacture	EUROCOPTER	EUROCOPTER	AS332 Super Puma
ACITURRI	Sponsons and VT	FOKKER	EUROCOPTER	NH 90
AERNNNOVA	Tail cone (composite)	EUROCOPTER	EUROCOPTER	EC135
AERNNNOVA	Build to print Forward fuselage and Aft fuselage	EUROCOPTER	EUROCOPTER	NH 90
AERNNNOVA	Rear fuselage / HTP assembly (composite)	EUROCOPTER	EUROCOPTER	TIGRE
LTK Grupo	Special Aerospace Logistics: Transport, Stock, Quality control...	EUROCOPTER	EUROCOPTER	EC135, NH90, TIGRE
AERNNNOVA	Design and manufacture of the equipped transition section and tail cone - Risk Partner	SIKORSKY	SIKORSKY	S-92
AERNNNOVA	Design and manufacture of the main rotor pylon, fairings and engine cowlings -Risk Partner	SIKORSKY	SIKORSKY	S-92
AERNNNOVA	Design and manufacture of interiors - Risk Partner	SIKORSKY	SIKORSKY	S-92
BURULAN	Manufacturer of components, surface treatments, assemblies	AERNNNOVA	SIKORSKY	S-92
Grupo TTT	Heat and surface treatments	AERNNNOVA	SIKORSKY	S-92
METRALTEC	Manufacture of elementary parts and assemblies (sheet metal, machining, heat treatments and surface treatments, painting)	AERNNNOVA	SIKORSKY	S-92
NUTER	Structural components	AERNNNOVA	SIRKOSKY	S-92

Engines
Motores
Motorrak

4

Civil engines



ROLLS-ROYCE TRENT 500

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	ENGINE MODEL	PLATFORMS
DMP	Carter parts	PCB	CFM International	CFM56	AIRBUS A320 / BOEING 737
Grupo ITP	Lost wax casting super alloys for Turbine	SNECMA	CFM International	CFM56	AIRBUS A320 / BOEING 737
Grupo ITP	Lost wax casting super alloys for Turbine	SNECMA	CFM International	CFM56	AIRBUS A320 / BOEING 737
NIVAC	Thermal and surface treatments	WEC	CFM International	CFM56	AIRBUS A320 / BOEING 737
WEC	Parts of external equipment of engine	SNECMA	CFM International	CFM56	AIRBUS A320 / BOEING 737
WEC	Parts of external equipment of engine	SNECMA	CFM International	CFM56	AIRBUS A320 / BOEING 737
Grupo ITP	Lost wax casting super alloys for Turbine	MTU	EA	GP7000	AIRBUS A380
Grupo ITP	Manufacture of rear turbine structure	GENERAL ELECTRIC	GENERAL ELECTRIC	GE90-115	BOEING 777
ACITURRI	Struts	ITP	GENERAL ELECTRIC	GE90-115	BOEING 777
Grupo ITP	Components	GENERAL ELECTRIC	GENERAL ELECTRIC	CF34-10	EMBRAER 190/ LINEAGE 1000
WEC	Parts of external equipment of engine	SNECMA	GENERAL ELECTRIC	GE90-115	BOEING 777
Grupo ITP	Structural components	HONEYWELL	HONEYWELL	HTF7000	BOMBARDIER CHALLENGER 300
Grupo ITP	Lost wax casting super alloys for Turbine	SNECMA	POWERJET	SaM146	SUKHOI SUPERJET 100
Grupo ITP	Design and manufacture of the LPT -Risk Partner	P&W CANADA	PRATT & WHITNEY	PW810	CESSNA COLUMBUS
Grupo ITP	Components manufacture	P&W CANADA	PRATT & WHITNEY	PW535E	EMBRAER PHENOM 300
Grupo ITP	Parts of external equipment of engine	ROLLS-ROYCE	ROLLS-ROYCE	BR725	GULFSTREAM G650
ACITURRI	Housings	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
Grupo ITP	Design and manufacture of low pressure turbine (LPT) -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent 500	AIRBUS A340
Grupo ITP	Design and manufacture of the Rear Frame -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent 500	AIRBUS A340
Grupo ITP	Lost wax casting super alloys for the LPT	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
NOVALTI	Components	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
NUTER	Fittings	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
SIEGEL	Machined Components	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
WEC	Parts of external equipment of engine	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
WEC	Structural parts	ITP	ROLLS-ROYCE	Trent 500	AIRBUS A340
ACITURRI	Housings	ITP	ROLLS-ROYCE	Trent 700	AIRBUS A330
Grupo ITP	Assembly of the LPT and component manufacture	ROLLS-ROYCE	ROLLS-ROYCE	Trent 700	AIRBUS A330
Grupo ITP	Lost wax casting super alloys for the intermediate pressure turbine	ROLLS-ROYCE	ROLLS-ROYCE	Trent 700	AIRBUS A330
WEC	Parts of external equipment of engine	ITP	ROLLS-ROYCE	Trent 700	AIRBUS A330
ACITURRI	Lugs and vanes	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
ASTORKIA	Engine components	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
CTA	Validation tests of Aerodynamic Technologies	ITP	ROLLS ROYCE	Trent 900	AIRBUS A380
ELECTROHILO	HUB drill, Separation Top Core Vane, Vanes erosion	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
Grupo ITP	Design and manufacture of the low pressure turbine (LPT) -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent 900	AIRBUS A380



ROLLS-ROYCE TRENT 900

Civil engines

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	ENGINE MODEL	PLATFORMS
Grupo ITP	Design and manufacture of the Rear Frame -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent 900	AIRBUS A380
Grupo ITP	Lost wax casting super alloys for the LPT	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
Grupo ITP	Lost wax casting super alloys for the intermediate pressure turbine	ROLLS-ROYCE	ROLLS-ROYCE	Trent 900	AIRBUS A380
NOVALTI	Components for the LPT	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
NUTER	Fittings	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
SIEGEL	Machined Components	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
WEC	Ferrule parts	ITP	ROLLS-ROYCE	Trent 900	AIRBUS A380
AIBE	Design and manufacture of clamping systems for machining processes and special machines	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
ASTORKIA	Engine components	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
CTA	Validation tests of Aerodynamic Technologies	ITP	ROLLS ROYCE	Trent 1000	BOEING 787
ELECTROHILO	LE, TE, vane edging, Bottom Core, Thick Subassy, Bars	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
Grupo ITP	Design and manufacture of low pressure turbine (LPT) -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent 1000	BOEING 787
Grupo ITP	Design and manufacture of Rear Frame -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent 1000	BOEING 787
Grupo ITP	Lost wax casting super alloys for the LPT	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
Grupo ITP	Lost wax casting super alloys for the intermediate pressure turbine	ROLLS-ROYCE	ROLLS-ROYCE	Trent 1000	BOEING 787
NOVALTI	Components for the LPT	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
NUTER	Fittings	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
SIEGEL	Machined Components	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
WEC	Parts of external equipment of engine	ITP	ROLLS-ROYCE	Trent 1000	BOEING 787
ALTRAN	Aerodynamics, structural and heat analysis	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
CTA	TBH Stub-Lug Buckling Test	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
CTA	Validation tests of Aerodynamic Technologies	ITP	ROLLS ROYCE	Trent XWB	AIRBUS A350XWB
ELECTROHILO	Edging of VANES and BCVs	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
Grupo ITP	Design and manufacture of the low pressure turbine (LPT) - Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
Grupo ITP	Design and manufacture of the Rear Frame -Risk Partner	ROLLS-ROYCE	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
Grupo ITP	Lost wax casting super alloys for the LPT	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
Grupo ITP	Lost wax casting super alloys for the intermediate pressure turbine	ROLLS-ROYCE	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
IND. GALINDO	Manufacturing of Tooling for LPT Components (inter stage seals)	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
NUTER	Fittings	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
SIEGEL	Machined Components	ITP	ROLLS-ROYCE	Trent XWB	AIRBUS A350XWB
TEY	Heat treatments	ITP	ROLLS ROYCE	SEVERAL	SEVERAL
ACITURRI	End Fittings	RMDG Aerospace	ROLLS-ROYCE	SEVERAL	SEVERAL
Grupo TTT	Heat and surface treatments	ITP	ROLLS-ROYCE	SEVERAL	SEVERAL

Civil engines



DMP

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	ENGINE MODEL	PLATFORMS
MESIMA	Materials management and supply	ITP	ROLLS-ROYCE	SEVERAL	SEVERAL
MESIMA	Materials management and supply	NOVALTI	ROLLS-ROYCE	SEVERAL	SEVERAL
DMP	Transmission shafts Curvic-Coupling	TURBOMECA	TURBOMECA	ARRIEL / MAKILA	EUROCOPTER DAUPHIN / SUPERPUMA
DMP	HP turbine discs	AEROTECH	TURBOMECA	ARRIEL / MAKILA	EUROCOPTER DAUPHIN / SUPERPUMA
DMP	Transmission shafts Curvic-Coupling	TURBOMECA	TURBOMECA	ARRIUS	EUROCOPTER EC135
DMP	HP turbine discs	AEROTECH	TURBOMECA	ARRIUS	EUROCOPTER EC135
DMP	Main transmission gears	TURBOMECA	TURBOMECA	ALL RANGE	MISCELLANEOUS
DMP	Accessory transmission gears	TURBOMECA	TURBOMECA	ALL RANGE	MISCELLANEOUS
TEY	Heat treatments	TURBOMECA	TURBOMECA	SEVERAL	SEVERAL
AYZAR	Heat treatments	ACITURRI	SEVERAL	SEVERAL	SEVERAL
IND. GALINDO	Manufacturing of Tooling for turbine shafts and static components	ITP	SEVERAL	SEVERAL	SEVERAL
IND. GALINDO	Desing of Cutting Tools	ITP	SEVERAL	SEVERAL	SEVERAL
SISTEPLANT	Quality Function Deployment - engines	ITP	SEVERAL	SEVERAL	SEVERAL
TEY	Heat treatments	DMP	SEVERAL	SEVERAL	SEVERAL
TEY	Heat treatments	WEC	SEVERAL	SEVERAL	SEVERAL

Defence engines

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	ENGINE MODEL	PLATFORMS
ACITURRI	Lugs and vanes	ITP	EPI	TP400	AIRBUS A400M
ELECTROHILO	Inner vanes erosion	ITP	EPI	TP400	AIRBUS A400M
Grupo ITP	Design and manufacture of low pressure turbine (LPT) -Member of EPI Consortium	AIRBUS MILITARY	EPI	TP400	AIRBUS A400M
Grupo ITP	Design and manufacture of the Front Frame and Exhaust System - Member of the EPI Consortium	AIRBUS MILITARY	EPI	TP400	AIRBUS A400M
Grupo ITP	Manufacture of Externals -Member of EPI Consortium	AIRBUS MILITARY	EPI	TP400	AIRBUS A400M
Grupo ITP	Final assembly of engine - Member of EPI Consortium	AIRBUS MILITARY	EPI	TP400	AIRBUS A400M
Grupo ITP	Lost wax casting super alloys for intermediate pressure turbine	ROLLS-ROYCE	EPI	TP400	AIRBUS A400M
Grupo ITP	Lost wax casting super alloys for the LPT	ITP	EPI	TP400	AIRBUS A400M
NOVALTI	Components for LPT	ITP	EPI	TP400	AIRBUS A400M
NUTER	Fittings	ITP	EPI	TP400	AIRBUS A400M
SENER	Test gantry	ITP	EPI	TP400	AIRBUS A400M
SIEGEL	Components	ITP	EPI	TP400	AIRBUS A400M
TEY	Heat treatments	SENER	EPI	TP400	AIRBUS A400M
WEC	Parts of external equipment of engine	ITP	EPI	TP400	AIRBUS A400M

Defence engines

MEMBER	General Description of the Product/service	DIRECT CLIENT	OEM	ENGINE MODEL	PLATFORMS
ACITURRI	Mounting Rings, Thermales and fittings	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
ACITURRI	Components	WEC	EUROJET	EJ200	EUROFIGHTER TYPHOON
AEROMECH	LPT rings	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
ARATZ	Machined parts	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
ELECTROHILO	TEC segmentation	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Design and manufacture of the Diffuser cones and By-Pass Module - Member of the EUROJET Consortium	NETMA	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Design and manufacture of the post burner duct and variable nozzle - Member of the EUROJET Consortium	NETMA	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Manufacture of Externals - Member of the EUROJET Consortium	NETMA	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Final assembly of the engine-Member of the EUROJET Consortium	NETMA	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Lost wax casting super alloys - nozzle	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Lost wax casting super alloys - low pressure turbine	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
Grupo TTT	Heat and Surface treatments	SEVERAL	EUROJET	EJ200	EUROFIGHTER TYPHOON
NOVALTI	Components	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
NUTER	Fittings	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
SIEGEL	Components	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
WEC	Exhaust nozzle parts	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
WEC	TEC parts	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
WEC	Exhaust nozzle parts	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
WEC	Parts of external equipment of engine	ITP	EUROJET	EJ200	EUROFIGHTER TYPHOON
ELECTROHILO	Strut manufacture	ITP	MTRI	MTR390-E	EUROCOPTER TIGRE
Grupo ITP	Design and manufacture of three LPT - Member of the MTRI Consortium	EUROCOPTER	MTRI	MTR390-E	EUROCOPTER TIGRE
Grupo ITP	Final assembly of the engine - Member of the MTRI Consortium	EUROCOPTER	MTRI	MTR390-E	EUROCOPTER TIGRE
Grupo ITP	Lost wax casting super alloys - low pressure turbine	ITP	MTRI	MTR390-E	EUROCOPTER TIGRE
NOVALTI	Engine components	ITP	MTRI	MTR390-E	EUROCOPTER TIGRE
Grupo ITP	Design and validation of the ROLL POST	ROLLS-ROYCE	ROLLS-ROYCE	F136	LOCKHEED MARTIN F-35
TEY	Heat treatments	ITP	ROLLS-ROYCE	SEVERAL	SEVERAL

4

Systems and Equipment

Sistemas y equipos

Sistemak eta ekipoak

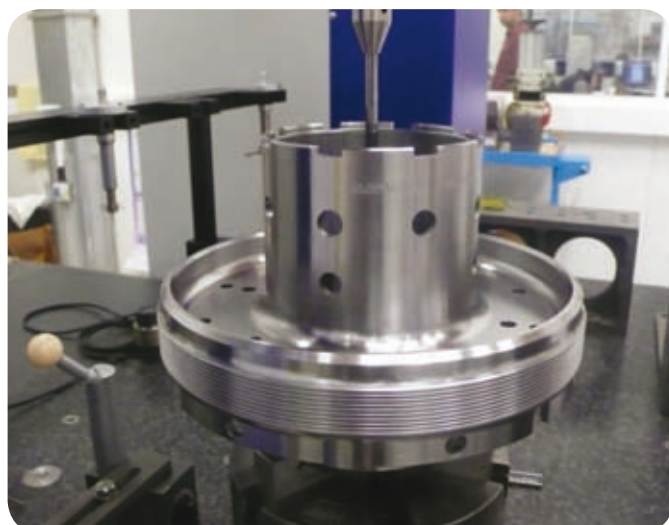


Systems and Equipment

MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
ACITURRI	Hydraulic Tanks	CESA	Hydraulic System	AIRBUS A380
ACITURRI	Hydraulic actuators	CESA	Hydraulic System	AIRBUS A400M
ACITURRI	Equipped elements	RATIER FIGEAC	Turboprop systems	SEVERAL
ACITURRI	Electrical installation cabinets	SOGEMASA	Electrical system	SEVERAL
AERNNOVA	Missile launcher tubes (composite)	MBDA	MILAN / MISTRAL	Defence aircrafts
AERNNOVA	Logistics container (composite)	DBGT	IRIS T	Defence aircrafts
AERNNOVA	Antennas and randomes (composite)	INDRA	Radars	Defence aircrafts
AERNNOVA	Wing conduits (composite)	ALENIA	Wings Systems	EUROFIGHTER TYPHOON
AERNNOVA	Flare dispenser (composite)	ALENIA	Special equipment	EUROFIGHTER TYPHOON
AERNNOVA	Ammunition box (composite)	MAUSER	Special equipment	EUROFIGHTER TYPHOON
AEROMECH	Auxiliary and main landing gear components	CESA	Landing Gear	CASA C295
AEROMECH	Main landing gear components	CESA	Landing Gear	CASA CN235
AIBE	Precision machining of components	SENER	SEVERAL	SEVERAL
ALFA MICROFUSION	Conduits- Air Fittings (Lost wax casting superalloys)	LIEBHERR AEROSPACE	Air Conditioning	AIRBUS A320
ALFA MICROFUSION	Conduits- Air Fittings (Lost wax casting superalloys)	LIEBHERR AEROSPACE	Air Conditioning	AIRBUS A380
ALFA MICROFUSION	Conduits- Air Fittings (Lost wax casting superalloys)	LIEBHERR AEROSPACE	Air Conditioning	BOEING 787
ALFA MICROFUSION	Optronic equipment housings (Lost wax casting aluminium)	SAGEM DEFENSE	Optronic System TV - Thermography	EUROCOPTER NH90
ALFA MICROFUSION	Radar housings (Lost wax casting aluminium)	INDRA	Radars	EUROFIGHTER TYPHOON
ALTRAN	Door actuator dimensioning	CESA	Doors	A400M
ALTRAN	Landing gear design	AIRBUS MILITARY	Landing Gear	AIRBUS A320/380/400M
ALTRAN	Harness design	AIRBUS MILITARY	Electrical system	C295 CH01
CTA	Landing Gear Actuator Qualification Test (NLG and CLG)	CESA	NLG / CLG	AIRBUS A340/600
CTA	Landing Gear Actuator Qualification Test (NLG)	CESA	NLG	AIRBUS A380
CTA	4 Landing Gear Actuator Qualification Tests and 6 Ramp System Tests.	CESA	NLG / CLG	AIRBUS A400M
CTA	Fire Certification Tests	INDRA	Electronic boards	AIRBUS A400M
CTA	HALT tests PGE vibration equipment	TECNOBIT	PGE	Ground equipment
CTA	HALT tests Perseo vibration equipment	TECNOBIT	PERSEO	Ground equipment
DMP	Shock Absorber	MESSIER-DOWTY	MLG	A330/A340
DMP	Shock Absorber	MESSIER-DOWTY	MLG	AIRBUS A350XWB
DMP	Shock Absorber	MESSIER-DOWTY	NLG	BOEING 787
DMP	Main rotor servocontrol kit	GOODRICH	Main rotor	EUROCOPTER DAUPHIN
DMP	Main rotor servocontrol kit	GOODRICH	Main rotor	EUROCOPTER ECUREUIL
DMP	Balancier équipé	MESSIER-DOWTY	Main rotor	EUROCOPTER SUPER PUMA
Grupo TTT	Heat and surface treatments	MESSIER-DOWTY	Landing Gear	AIRBUS Families
Grupo TTT	Heat and surface treatments	MESSIER-BUGATTI	Brakes	AIRBUS Families

Systems and Equipment

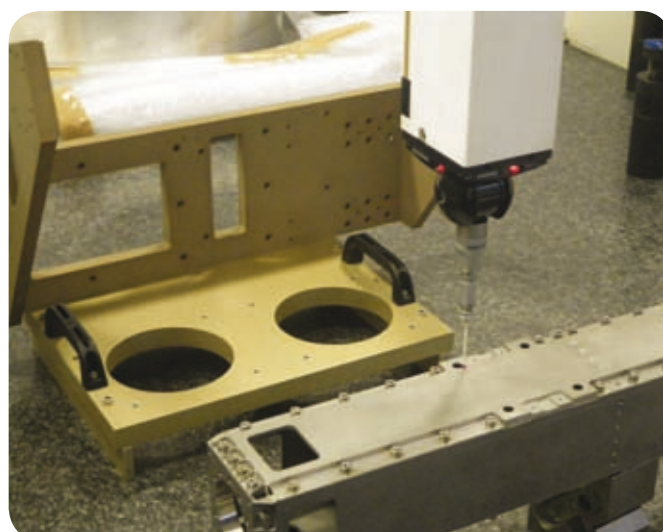
MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
NUTER	Components	CESA	SEVERAL	AIRBUS A330
NUTER	Components	CESA	SEVERAL	AIRBUS A350XWB
NUTER	Components	CESA	SEVERAL	AIRBUS A400M
QAES / GLOBAL Q	Equipment verification	AIRBUS MILITARY	SEVERAL	Defence aircrafts
QAES / GLOBAL Q	Quality Management	AIRBUS MILITARY	SEVERAL	Defence aircrafts
SENER	Production of the Control Section of aerodynamic fins and fixed wings (Air - Air version)	DBD	IRIS-T	Defence aircrafts
SENER	FASS subsystem of drive and control of aerodynamic fins	TAURUS Systems GmbH	TAURUS KEPD 350	Defence aircrafts
SENER	Development, qualification, industrialisation and production of the Control Section of aerodynamic fins	MBDA-UK	METEOR	Defence aircrafts
SENER	Free flight campaign of the TAURUS KEPD 350 in South Africa	MALOG	TAURUS KEPD 350	Defence aircrafts
SENER	Integration of the TAURUS KEPD 350 in the EF18 and acquisition of units	MALOG	TAURUS KEPD 350	Defence aircrafts
SENER	Image management unit for two Tactical Recognition systems (ReccelLite or Litening Pods)	ZEISS OPTRONICS	IPU 2 / IPU 3	Defence aircrafts
SENER	Development and qualification of the Control Section of aerodynamic fins (Ground - Air version)	DBD	IRIS-T SL	Ground equipment
SENER	Complete terminal guidance subsystem, semi-active laser (SALS) and processing for the terminal guidance (software and hardware)	OTO MELARA	VULCANO	Ground equipment
SENER	Production of the Control Section of aerodynamic fins	KONGSBERG Defence & Aerospace	NSM	Ground equipment



DMP

Systems and Equipment

MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
TECNALIA	Man-Machine interfaces for the AIRBUS plants in PUERTO REAL and EADS SEVILLA Plant	AIRBUS MILITARY	Equipment and software	AIRBUS families
TECNALIA	Drilling and riveting robots autocalibration software	AIRBUS MILITARY	Equipment and software	AIRBUS families
TECNASA	O-RINGS	MARTIN-BAKER	Ejection Seats	Defence aircraft
TECNASA	PULL	MARTIN-BAKER	Ejection Seats	Defence aircraft
TECNASA	JIGS	MARTIN-BAKER	Ejection Seats	Defence aircraft
TEY	Heat treatments	CESA	Landing Gears	SEVERAL
TEY	Heat treatments	AIRBUS MILITARY	SEVERAL	SEVERAL
TEY	Heat treatments	SENER	SEVERAL	SEVERAL
TEY	Heat treatments	DMP	SEVERAL	SEVERAL
WEC	Air Bleed equipment parts	HONEYWELL	Air Conditioning	AIRBUS A320
WEC	Connection box	SNECMA	SEVERAL	AIRBUS A320
WEC	Air Bleed equipment parts	HONEYWELL	Air Conditioning	AIRBUS A330
WEC	Thrust Reverser parts	AIRCELLE	Systems	AIRBUS A380
WEC	Air Bleed equipment parts	LIEBHERR	Air Conditioning	BOEING 747-8
WEC	Stabilising wings	SENER	IRIS-T	Defence aircrafts



AEROMECH

4

Maintenance

Mantenimiento

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Maintenance

MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
AERNNOVA	Composite structure repairs	BOMBARDIER & Operators	Tips, fairings, etc	BOMBARDIER Families
AERNNOVA	Inspections, special processes and re-qualifications	Operators	Several	BOMBARDIER Families
AERNNOVA	Metal structure repairs	Operators	Wings, stabilises, fuselages, etc	BOMBARDIER Families
AERNNOVA	Composite structure repairs	EMBRAER & Operators	Elevators, Rudders	EMBRAER 170/190
AERNNOVA	Composite structure repairs	EMBRAER & Operators	Flaps, Ailerons, Wing tips, Winglets	EMBRAER ERJ145/135/Legacy
AERNNOVA	Composite structure repairs	EMBRAER & Operators	Landing gear doors, Spoilers, Fairings	EMBRAER ERJ145/135/Legacy
AERNNOVA	Inspections, special processes and re-qualifications	Operators	Several	EMBRAER Families
AERNNOVA	Metal structure repairs	Operators	Wings, stabilises, fuselages, etc	EMBRAER Families
AERNNOVA	Technical assistance & Sales of spares 24H/365d	Operators	Several	SEVERAL
AERNNOVA	Composite structure repairs	SIKORSKY	Doors, cowlings, stabilisers	SIKORSKY S-92
AEROSPACE ENGINEERING GROUP	Overhaul and repair of electromechanical components and turning equipment and LRUs	AIRLINES	Electrical/hydraulic/avionics systems	SEVERAL
AEROSPACE ENGINEERING GROUP	Overhaul and repair of electromechanical components and turning equipment and LRUs	SPANISH MINISTRY OF DEFENCE	Electrical/hydraulic/avionics systems	SEVERAL
ALTRAN	Gestion Soportabilidad y Mantenibilidad	AIRBUS MILITARY	Several	AIRBUS A400M/330MRTT
ALTRAN	Gestion Soportabilidad y Mantenibilidad	AIRBUS MILITARY	Several	CASA C295
Grupo ITP	Full Maintenance, Inspection and Repair of the F404 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	GE F404	BOEING F/A-18
Grupo ITP	Resolving incidents	ROLLS-ROYCE	RR Trent 700	AIRBUS A330
Grupo ITP	Resolving incidents	ROLLS-ROYCE	RR Trent 500	AIRBUS A340
Grupo ITP	Resolving incidents	ROLLS-ROYCE	RR BR717	BOEING 717
Grupo ITP	Full Maintenance, Inspection and Repair of the TFE731 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	HONEYWELL TFE731	CASA C101
Grupo ITP	Full Maintenance, Inspection and Repair of the TPE331 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	HONEYWELL TPE331	CASA C212
Grupo ITP	Full Maintenance, Inspection and Repair of the ATAR -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	SNECMA ATAR	DASSAULT MIRAGE Families

Maintenance

MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
Grupo ITP	Full Maintenance, Inspection and Repair of the PW206 -engine, modules and components- & engine and accessories test	Several	P&W PW206	EUROCOPTER EC135
Grupo ITP	Full Maintenance, Inspection and Repair of the EJ200 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	EUROJET EJ200	EUROFIGHTER TYPHOON
Grupo ITP	Full Maintenance, Inspection and Repair of the T56 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	RR T56	LOOCKHEED MARTIN C130
Grupo ITP	Full Maintenance, Inspection and Repair of the T56 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	RR T56	LOOCKHEED MARTIN P3
Grupo ITP	Full Maintenance, Inspection and Repair of the J85 -engine, modules and components- & engine and accessories test	SPANISH MINISTRY OF DEFENCE	GE J85	NORTHROP F-5
Grupo ITP	Full Maintenance, Inspection and Repair of the TPE331 -engine, modules and components- & engine and accessories test	ROYAL AIR FORCE	HONEYWELL TPE331	SHORT TUCANO
SISTEPLANT	Lean MRO	IBERIA MAINTENANCE	Lean MRO	AIRLINES
SISTEPLANT	Lean MRO - re-engineering of MRO operations	EADS DEFENCE & SECURITY	Lean MRO	BOEING F/A-18
SISTEPLANT	Lean MRO in Airforce Arsenal - re-engineering of MRO operations	SPANISH MINISTRY OF DEFENCE	Lean MRO	SEVERAL
SISTEPLANT	Lean MRO in civil aviation overhaul workshops	SR Technics	Lean MRO	SPANAIR Fleet
TAMOIN POWER SERVICES	Engine disassembly and overhaul	IBERIA Maintenance	CFM Int. CMF56	AIRBUS A320
TAMOIN POWER SERVICES	Engine disassembly and overhaul	IBERIA Maintenance	CFM Int. CMF56	BOEING 737
TAMOIN POWER SERVICES	Engine disassembly and overhaul	IBERIA Maintenance	P&W JT8D	McDONNELL DOUGLAS MD80 Series



TPS



HONEYWELL TPE331

4

Space

Espacio
Espazioa



Space

MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
AEROMECH	Boom for BEPI COLOMBO satellite Antenna	SENER	Antenna	BEPI COLOMBO SATELLITE
AIBE	Structural dimensioning	SENER	MISCELLANEOUS	MISCELLANEOUS
ALTRAN	Structural dimensioning	EADS ASTRIUM	Reflectores	AMAZONAS3
ALTRAN	Structural dimensioning	EADS CRISA	Reflectores	ASTRA 2
ALTRAN	Structural dimensioning	EADS ASTRIUM	Antenas FSA	ASTRA1N
ALTRAN	Test development and validation	EADS ASTRIUM	Reflectores	HISPASAT1E
ALTRAN	Structural dimensioning	EADS ASTRIUM	Antenas Top Floor	REDSAT
ARATZ	Machined Components	SEVERAL	MISCELLANEOUS	MISCELLANEOUS
ARATZ	Components for satellite antennas	SEVERAL	MISCELLANEOUS	MISCELLANEOUS
AYZAR	Heat treatments	ARATZ	MISCELLANEOUS	MISCELLANEOUS
CTA	BEPICOLMBO magnetometer boom tests	SENER	Magnetometer Boom	BEPICOLMBO
CTA	GAIA satellite DSA vibration tests	SENER	DSA	GAIA
CTA	GAIA satellite M2MM vibration tests	SENER	M2MM	GAIA
CTA	SENTINEL 1 DHM vibration tests	SENER	SENTINEL 1	GMES
CTA	MTG SMBB vibration tests	SENER	SMBB	MTG
Grupo ITP	Super alloy components for space shuttle engine	SNECMA	Shuttle	ARIANE 5
NOVALTI	On-board components and mechanical systems	THALES ALENIA SPACE	MISCELLANEOUS	ARABSAT 5C
NOVALTI	On-board components and mechanical systems	SENER	MISCELLANEOUS	BEPI COLOMBO
NOVALTI	On-board components and mechanical systems	THALES ALENIA SPACE	MISCELLANEOUS	SICRAL
NUTER	Components	SENER	MISCELLANEOUS	GAIA
NUTER	Components	SENER	MISCELLANEOUS	METEOSAT
SENER	Analysis of different alternatives for planetary vehicle landing gear	ESA	Planetary exploration ship -Scientific Mission	AURORA - Retorno de Muestras de Marte (MSR)
SENER	Mechanism that separates the magnetic disturbance magnetometer of the satellites, as well as the accompanying mobile arm	ESA / JAXA	Planetary exploration ship -Scientific Mission	BEPICOLMBO
SENER-NTE	Main system contractor	ESA	MARES system to investigate muscular atrophy caused by weightlessness	Columbus
SENER	Main contractor and responsible for the support structure and of the help system at the exit of the Rover (SES) onto the Martian surface	ESA	Planetary exploration ship -Scientific Mission	EXOMARS



CTA



SENER

MEMBER	General Description of the Product/service	DIRECT CLIENT	SYSTEM / EQUIPMENT	PLATFORMS
SENER	Raman LIBS instrument	INTA / CAB	Planetary exploration ship -Scientific Mission	EXOMARS
SENER	Deployable parasol, precision pointing mechanism in three axes plus two more times of the M2MM mirror of the optical system.	ASTRIUM SAS	Observation satellites - Scientific Mission	GAIA
SENER	Design and verification of a swinging mechanism or FMD (Flip Mirror Device)	JENA OPTRONIK	Observation satellite -Sentinel 3-	GMES
SENER	Attitude and orbit complete control system (AOCS/GNC)	ESA / THALES ALENIA SPACE Italy & France	Observation satellites - Scientific Mission	HERSCHEL - PLANCK
SENER	In-flight demonstration study of all the functions of the mechanism and Guidance, Navigation and Control system (GNC)	ESA - ESTEC	Docking and joining mechanism -Navigation	IBDM (International Berthing and Docking Mechanism)
SENER	Complete Guidance, Navigation and Flight control subsystem (GNC)	ESA	Intermediate experimental vehicle for re-entry into atmosphere	IXV
SENER	High gain antenna pointing mechanisms (HGAG) of the Rover	NASA	Planetary exploration ship -Scientific Mission	MARS SCIENCE LABORATORY
SENER-NTE	Technical and engineering assistance in the project	ESA	MELISSA project for developing a life-support system for long duration space travel and planetary bases.	Melissa
SENER	Development model of the visible camera scanner	EADS ASTRIUM	Observation satellite	METEOSAT Tercera Generación (MTG)
SENER	Attitude Determination and Control system (ADCS)	INTA	Pico-satellite - Navigation	OPTOS
SENER	Complete formation flying system (FF)	ESA	Set of small satellites - Navigation	PROBA 3
SENER	Main contractor of the formation flying system	ESA	Formation flying system	Proba-3
SENER	Optical instrument: engineering work of systems and optical and thermal-structural design	CDTI	Optical instrument - Observation satellite	SEOSAT / INGENIO
SENER	Complete Guidance, Navigation and Control system (GNC)	OSSL	Orbital servicing vehicle to prolong the life of satellites - Navigation	SMART - OLEV
SENER	Feasibility study of the ISSIS instrument (Imaging and Slitless Spectroscopy Instrument for Surveys)	CDTI	Optical instrument - Observation satellite	World Space Observatory - Ultra Violet (WSO-UV)
SISTEPLANT	Lean Design in UK and France plants	EADS ASTRIUM	Satellite	HISPASAT 1E
SISTEPLANT	Lean Design in UK and France plants	EADS ASTRIUM	Satellite	SENTINEL 2
SISTEPLANT	Lean Design in UK and France plants	EADS ASTRIUM	Satellite	SENTINEL 3
SISTEPLANT	Lean Design in UK and France plants	EADS ASTRIUM	Satellite	SEOSAT
TECNALIA	Microsection testing lab	ASTRIUM, ESA, TAS	PCU, Electronics	GALILEO
TECNALIA	Space technology transfer- Multifunctional Space Structures for Avionics	ESA	Consulting work	MISCELLANEOUS
TECNALIA	Hybrid packaging	EADS-CASA ESPACIO	Active antenna	SMALL GEO
TECNALIA	Solid lubricants	ESA, ADR, SENER	Mechanisms	SPICA
TEY	Heat treatments	EADS-CASA ESPACIO	MISCELLANEOUS	MISCELLANEOUS
TEY	Heat treatments	INDRA	MISCELLANEOUS	MISCELLANEOUS
TEY	Heat treatments	SENER	MISCELLANEOUS	MISCELLANEOUS

4

R&D Projects

Proyectos de I+D
I+G proiektuak

Aircraft and Space Engineering

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
SENER	Robotic arm for extravehicular activities in space	Robot arm	European - ESA
ACITURRI	HP-SMART-EMA	Development of High Performance Electromechanical Actuators	European - CLEAN SKY
CTA	HP-SMART EMA	Development of a new EM actuator	European - CLEAN SKY
SENER	HP-SMARTEMA- Development of high power density electrical actuators.	Development of high power density electrical actuators. Collaboration with SENER, CTA, Castle Aero	European - CLEAN SKY
TECNALIA	ActiPPTSens- Active Pressure, Position and Temperature sensors for Turboshaft engines.	Active Pressure, Position and Temperature sensors for Turboshaft engines.. Collaboration with ICV-CSIC, CEDRAT, Cardiff University	European - CLEAN SKY
ACITURRI	NICE TRIP (Novel Innovative Competitive Effective Tilt Rotor Integrated Project): convertible aircraft-helicopter	Development of a Tilt-Rotor prototype	European - FP6
CTA	VITAL	Aerodynamics: Environmentally Friendly Aero Engine	European - FP6
Grupo ITP	AIDA - Aggressive Intermediate Duct Aerodynamics for Competitive and Environmentally Jet Engines	Aerodynamics: Development of transition ducts between compressors and between turbines in order to reduce consumption and noise emitted by turbomachinery.	European - FP6
Grupo ITP	MAGPI - Main Annulus Gas Path Interactions	: Interaction of secondary flows with the main flow and effects of cavities in turbomachinery.	European - FP6
Grupo ITP	PREMECCY - Protective Methods for Combined Cycle Fatigue in Gas Turbines	Fatigue prediction: Study of mechanisms and prediction of fatigue in turbomachinery	European - FP6
Grupo ITP	TATMO - Turbulence and Transition Modelling for Specigla Turbomachinery	Aerodynamics: Improvements in efficiency by means of non-stationary at aerodynamic analysis	European - FP6
Grupo ITP	VITAL - Environmentally Friendly Aero Engine	Advanced propulsion plants: Integrated project. Substantial reductions in emissions (-18% of CO ₂) and noise (-6dB).	European - FP6
SENER	HISAC (Environmentally Friendly High Speed Aircraft)	Assess the feasibility of a small, environmentally friendly and economically feasible supersonic transport aircraft.	European - FP6
SENER	NICE TRIP (Novel Innovative Competitive Effective Tilt Rotor Integrated Project): convertible aircraft-helicopter	SENER designs the rotor components, the drive system and the nacelle	European - FP6
SENER	VULCAN - Vulnerability analysis and new materials and design approaches for aircraft strengthening against fire and blast due to accident or terrorist attacks	Development of improved design for sub-structures with high energy absorption capacity materials in the presence of fire and explosion.	European - FP6
AERNNOVA	CLEAN SKY	Smart Fixed Wing Aircraft	European - FP7
ACITURRI	LAYS	Development of new functional composites	European - FP7
AERNNOVA	ELECTRICAL	Novel Aeronautical Multifunctional Composite Structures With Bulk Electrical Conductivity And Self-Sensing Capabilities	European - FP7
AERNNOVA	DAEDALOS	Dynamics in Aircraft Engineering Design and Analysis for Light Optimized Structures	European - FP7
AERNNOVA	LAYS	Multifunctional Layers for Safer Aircraft Composites Structures	European - FP7
AERNNOVA	CESAR	Cost Effective Small Aircraft	European - FP7
AERNNOVA	ADVICE	Autonomous Damage Detection and Vibration Control Systems	European - FP7

Aircraft and Space Engineering

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
AEROVISION	WIMAAS (Wide Maritime Area Airborne Surveillance)	Wide Maritime Area surveillance with aircrafts and UAS / Lider THALES	European - FP7
CTA	AISHA II	Aircraft Integrated Structural Health Assessment II	European - FP7
CTA	DREAM	Aerodynamics: Validation of Radical Engine Architecture	European - FP7
CTA	FANTOM	Full field Aeronautical Non destructive Technique for On -line and Maintenance applications	European - FP7
CTA	DOTNAC	Development and optimization of THz NDT on aeronautics Composite multilayered Structure	European - FP7
CTA	FUTURE	Aerodynamics: Flutter-Free Turbomachinery Blades	European - FP7
Grupo ITP	DREAM - Validation of Radical Engine Architecture Systems	Advanced propulsion plants: Study of new architectures for propulsion plants based on the open-rotor concept	European - FP7
Grupo ITP	FUTURE - Flutter-Free Turbomachinery Blades	Aerodynamics: Technological development to reduce the flutter phenomenon in turbomachinery blade crowns	European - FP7
Grupo ITP	JTI - Clean Sky	Advanced propulsion plants: Development of new concepts for the future generation of aircraft propulsion plants in accordance with the environmental requirements established by ACARE.	European - FP7
Grupo ITP	ERICKA - Engine Representative Internal Cooling and Applications	Technologies for turbine refrigeration	European - FP7
Grupo ITP	ELUBSYS - Engine Lubrication System Technologies	New lubrication technologies in gas turbines	European - FP7
Grupo ITP	OPENAIR - Optimisation for low Environmental Noise Impact Aircraft	Technologies for reducing noise in aircraft	European - FP7
IK4	ELUBSYS: engine lubrication systems technologies	Advanced propulsion plants: Optimisation of oil and fuel consumption, improving engine lubrication	European - FP7
IK4	ELUBSYS: engine lubrication systems technologies	Optimising the consumption of oil and fuel, improving engine lubrication	European - FP7
TECNALIA	ALICIA	Electronics for transport: Development of the new cabin concept and optimisation of operations under all conditions	European - FP7
ACITURRI	SINTONIA	UAV with low environmental impact	National-CENIT
ACITURRI	TARGET	Sustainable and intelligent technology for composite structure manufacturing	National-CENIT
AEROVISION	FULMAR-M (Maritime version of the Fulmar System)	New UAS for operation in a maritime environment and landing on the sea	National-CDTI
AEROVISION	ATLANTIDA (Air Traffic Management Research)	New Technology to research ATM using UAS / Lider BOEING R&T	National-CENIT
CTA	TEMBACO	Aerodynamics: Development of measurement technologies for low consumption engines	National - PROFIT
CTA	OPENAER	Aerodynamics: New aircraft and engine configurations for the future system of air transport	National-CENIT
Grupo ITP	TAG - Feasibility studies for the development of general aviation turbines	Feasibility studies for the development of low pressure turbines, structures and external components in turbines for general aviation	National - SAE
Grupo ITP	MASIR - Advanced Noiseless Machining	Noise reduction: Techniques to reduce noise in industrial environments engaged in the precision machining and well-being of parts.	National Calls

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
Grupo ITP	OPENAER - New engine and aircraft configurations for the future air transport system	Aerodynamics, Methods, Materials, Mechanical design, Manufacture and Control.: Development of technologies for the design and manufacture of components in the hot area of an aeronautical gas turbine in "open-rotor" configuration	National-CENIT
Grupo TTT	PROSAVE: Eco-efficient aircraft	Leader: CESA	National-CENIT
IK4	SINTONIA: non manned systems oriented to minimal environmental impact	Alternatives to conventional drive systems in order to minimise consumption / CESA	National-CENIT
IK4	SINTONIA: non manned systems oriented to minimal environmental impact	Alternatives to conventional systems to minimise consumption / CESA	National-CENIT
IK4	RC2: quick and cost-cutting manufacturing of functional prototypes for gas turbines made of pile up metallic layers	Manufacture and maintenance: Rapid manufacture of aeronautical turbine blade prototypes by means of "laser cladding" technique	National - Eureka-Profit
IK4	DEIMOS: control and monitoring of hydrogen pile prototype	Reliability and maintenance - CESA	National-CENIT
SENER	Feasibility study and configuration of EUCLID project		National - IDC
SENER	MICRODIS - Microelectronic devices for space instrumentation		National - IDC
SENER	Feasibility study for MISTIGRI project		National - IDC
SENER	SCIMIS - Feasibility study for scientific missions		National - IDC
SENER	EMA (Health Monitoring for Actuators)	Definition of a real-time monitoring system for electromechanical actuators for the determination of operating failures and operability level, providing high added value for the final product	National - SAE
SENER	AGCFO	Operations on the ground and in captive flight in an air-transported microlauncher	National - SAE
SENER	FCU WSO - UV camera for world space observatory		National - SAE
SENER	SOL-2 - Optical communications for deep space missions		National - SAE
SENER	OPENAER	Study new aircraft and engine configurations for the future air transport system.	National-CENIT
SENER	DEIMOS - Development and innovation of polymeric membrane and solid oxide fuel cells	Fuel piles for aircraft: Development and innovation of fuel piles of polymeric membrane and solid oxide	National-CENIT
SENER	SINTONIA	Unmanned zero environmental impact oriented systems.	National-CENIT
SISTEPLANT	PLATINO - HADA - UAV convertible aircraft-helicopter	Led by INTA, Sisteplant provides the health monitoring system	National-CDTI
SISTEPLANT	SIMAP - UAV healthmonitoring system	Design of health monitoring system for UAV	National-CDTI
TECNALIA	DEIMOS - Development and innovation of polymeric membrane and solid oxide fuel cells	Fuel cells for aircraft: Development of fuel cells for APUs/Collaboration with CESA-EADS/ Consortium also with SENER, CASA, AIRBUS, etc	National-CENIT

Aircraft and Space Engineering

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
CTA	AIRHEM	Health Monitoring in Aeronautics	Regional - ETORTEK
CTA	ACTIP	Aerodynamics: Reduction of secondary flows in low pressure turbines through active tip clearance control	Regional - SAIOTEK
CTA	DEXIAL	Aerodynamics: Development of axial spacing optimisation tools between turbine blades	Regional - SAIOTEK
CTA	TIVECA	Measurement Technologies for validation of radical engine architecture.	Regional - SAIOTEK
CTA	FIBERSEN:	Comparative study of fibre-optic tests and traditional structural monitoring sensors under real flying conditions	Regional - SAIOTEK
CTA	AEROFIRE	Fire behaviour of the advanced composite materials used in aeronautical structural components	Regional - SAIOTEK
CTA	FIRETRAN:	Study of safety requirements in the case of fires of new materials used in advanced transport	Regional - SAIOTEK
Grupo ITP	NOISE MEASUREMENT - Optimisation and validation of techniques for the advanced measurement of noise in a jet engine.	Advanced instrumentation: Optimisation and validation of techniques for the advanced measurement of noise in a jet engine.	Regional - Madrid Region
Grupo ITP	SACMI - Advanced Control and Monitoring System of ITP	Control systems: Development of a control system applied to the fuel control unit of an aeronautical engine	Regional - Madrid Region
IK4	AIRHEM: health monitoring in aeronautics	Maintenance - Sensorisation and monitoring / CTA	Regional - ETORTEK
SENER	PIVOT - Advanced mechanical flexion elements for small turns		Regional - GAITEK
SENER	HEALTH-HM	Real-time monitoring of aeronautical actuators to determine operating failures and operability levels	Regional - GAITEK
SENER	ELGA	Integrated landing gear system by means of electromechanical drive and control (EMLG – ElectroMechanical Landing Gear)	Regional - INNOTEK
TECNALIA	AIRHEM	Electronics for transport: Health Monitoring for structures	Regional - ETORTEK
ALTRAN	ALTCOMP	Automation Methodology Dimensioning Primary Structure Composites	Others
IK4	MARVEL: structural integrity monitoring with ultrasonic radar built into reusable shuttle vehicles	Sensor systems - Aernnova	Others
IK4	HEMA: actuators health monitoring	Maintenance - sensorisation and monitoring of aeronautical actuators / SENER	Others
IK4	Thermo mechanical fatigue tests with minimum thermal and phase gradients	CICYT	Others
INGEMAT	Robcom	Robotized machining cell with flexible fixture	Others
SENER	HDR qualification with potentiometers		Others
SENER	Image navigation		Others
TEY	Heat treatments	SENER	Others

Manufacturing, Processes and Materials

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
SENER	High precision linear actuator (HPLA)	High precision Linear Actuator based on own design, applicable to deployment mechanisms	European - ESA GSTP
TECNALIA	"RemFOS".Design, Manufacturing and Reliability Evaluation of Embedded Sensors.	Design, Manufacturing and Reliability Evaluation of Embedded Sensors in aircraft composite structures. Collaboration with Fibersensing	European - CLEAN SKY-GRA
TECNALIA	"TiAlBLADE". (Blades into) High Temperature Material		European - CLEAN SKY-SAGE
TECNALIA	AMFSS - Multifunctional structures	Sandwich composite materials with embedded electronics and highly thermal dissipation capacity	European - ESA GSTP
Grupo ITP	FANTASIA - Flexible and Near-Net-Shape Generative Manufacture Chains and Repair Techniques for Complex Shaped Aero Engine Parts	Repair: advanced processes. New manufacturing and repair techniques based on LMD (Laser Metal Deposition) and LDF (Laser Direct Formig)	European - FP6
Grupo ITP	VERDI - Virtual Engineering for Robust Manufacturing with Design Integration	Process simulation: Production of scrap during the development stage (virtual tests) and reduction of engine weight (emission reduction)	European - FP6
IK4	TATEM: technologies and tools for novel maintenance Concepts	Maintenance	European - FP6
IK4	FOREMOST: fullerene-based opportunities for robust engineering: making optimised surfaces for tribology	Creation of nanostructured surfaces through the addition of inorganic fullerenes to improve tribological features (6 FP - NMP)	European - FP6
IK4	FOREMOST: fullerene-based opportunities for robust engineering: making optimised surfaces for tribology	Creation of nanostructured surfaces through the addition of inorganic fullerenes to improve tribological features	European - FP6
SENER	SENARIO - Advanced sensors and novel concepts for intelligent and reliable processing in bonded repairs	Attitude control systems: Development of innovating sensorial systems linked to intelligent control equipment and aerostructures maintenance methodologies.	European - FP6
SENER	NOESIS - Aerospace nanotube hybrid composite structures with sensing and actuating capabilities	Development of composite material with carbon nanotubes and with sensorial and drive capacity, by itself for aeronautics applications.	European - FP6
TECNALIA	VULCAN - Vulnerability analysis and new materials and design approaches for aircraft strengthening against fire and blast due to accident or terrorist attacks	Development of explosion and fire resistant composite materials/ Inasco, Sener, HAI, Univ. Patras, etc...	European - FP6
TECNALIA	SENARIO - Advanced sensors and novel concepts for intelligent and reliable processing in bonded repairs	Dielectric sensors in RTM moulds for monitoring composite filling and curing processes / Inasco, Bombardier, etc...	European - FP6
TECNALIA	AFFIX-Aligning, Holding & Fixing Flexible & Difficult to handle Components	Robotic solution for securing flexible pipes inside closed boxes	European - FP6
TECNALIA	MAFFIX-Completely flexible and reconfigurable fixturing of complex shaped workpieces with magnetorheological fluids	Compact fixture based on magneto-rheological fluids for aeronautic stringers milling	European - FP6

Manufacturing, Processes and Materials

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
ACITURRI	EMC2 Factory	Towards the completely green factory	European - FP7
Grupo ITP	ACCENT - Adaptive Control of Manufacturing Processes for a New Generation of Jet Engine Components	Process simulation: Development of adaptive control technologies for terrible machine component oriented manufacturing processes	European - FP7
IK4	ASPIRATE	IDEKO-IK4, Ortza S. Coop., Zubiola S. Coop, INVENT GmbH - The main objective of ASPIRATE is to develop an innovative technology for machining carbon and glass fibre reinforced plastic (CFRP and GFRP) parts	European - FP7
SENER	DATAFORM - Digitally Adjustable Tooling for manufacturing of Aircraft panels using multi-point FORMing methodology	Development of a flexible technology for the manufacture of metal aircraft panels, based on computer-controlled multipoint tooling methodology	European - FP7
SENER	HP-SMART-EMA	Development of high energy density electrical actuators	European - FP7
TECNALIA	AGAPAC- Cu-D and Cu-CNT based encapsulates for devices in GaN	Materials for encapsulating Power Electronics based on GaN / Thales Alcatel, Egide, Plansee...	European - FP7
TECNALIA	HIPER - Research into future space propulsion systems	Ceramic materials for thrusters. Collaborations with SNECMA, ALTA, ROLLS ROYCE, CNRS, ONERA, CNES, etc.	European - FP7
TECNALIA	INMA- Innovative manufacturing of complex Ti sheet components	New manufacturing technologies for complex Ti sheet aerocomponents making use of asymmetric incremental forming, lean heating and knowledge-based dieless manufacturing.	European - FP7
TECNALIA	ADVITAC - Advanced integrated composite tail cone	Development of new composite materials and technologies for the tail cone of future regional aircraft / DAHER Aerospace, Coriolis, FRT, Univ. Cranfield...	European - FP7
TECNALIA	IAPETUS - Innovative repair of aerospace structures with curing optimization & life cycle monitoring abilities	Development of structural repair processes by means of new materials and technologies / Huntsman, Inasco, HAI, DAHER, Univ. Patras...	European - FP7
TECNALIA	LAYSA - Multifunctional layer for safer aircraft composite structures	Developments of multifunctional laminated composite materials/ Aernnova, Aries Complex, Inasco, HAI, Univ. Patras, etc...	European - FP7
TECNALIA	ELECTRICAL- Novel Aeronautical Multifunctional Composite Structures with bulk electrical and self-sensing capabilities	The development of novel multifunctional aeronautical composite structures with bulk electrical conductivity and self-sensing capabilities	European - FP7
TECNALIA	MAAXIMUS- More Affordable Aircraft through eXtended, Integrated and Mature nUmerical Sizing	Robotic solution for the automation of orbital joint union in FAL	European - FP7
TECNALIA	SIDER- Radiation Shielding of Composite Space Enclosures	Improvement of radiation shielding properties of composite materials	European - FP7
NOVALTI	ADVANTICUT	NOVALTI-Univ. Mondragón	European - MANUNET

Manufacturing, Processes and Materials

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
ALESTIS	Environmental and intelligent technologies for composite materials structures generation (target)	Development of composites	National - CENIT
Grupo ITP	ALEXANDRIA	Development of Damage Inspection Techniques and Methodologies and New Generation Dimensional Metrology for the Aeronautics, Railways, Naval and Wind Power sectors.	National - MICIN
Grupo ITP	DESAFIO - Development of High Reliability Manufacturing Systems for Rotating Parts with High Surface Integrity Requirements	Development of High Reliability Manufacturing Systems for rotating parts with High Surface Integrity Requirements.	National - MICIN
Grupo ITP	MATERIALES - Oxycarbide layers of multi-component silicon on metal alloys surfaces by plasma spray	Development of the application of coatings by means of plasma spray	National - PROFIT
Grupo ITP	RAMPE - Alternative coatings to heavy metals (RAMPE)	Residue removal: Development of alternative coatings for removing Cr-VI	National - PROFIT
IK4	ISAM-A. Materials with autosensoral capacity; investigation of magnetorheological damping systems for aircraft		National - CDTI
IK4	ISAM-A. Materials with autosensoral capacity; investigation of magnetorheological damping systems for aircraft		National - CDTI
IK4	OPENAER: New aircraft and engine configurations for the future system of air transport	Predicting service life in critical rotating components - manufacturing strategies (machining) at thickness limit / ITP, Danobat, Lealde and others	National - CENIT
IK4	RC2: quick and cost-cutting manufacturing of functional prototypes for gas turbines made of pile up metallic layers	Fabricación rápida de prototipos de álabes de turbinas aeronáuticas mediante técnicas de "laser cladding"	National - Eureka-Profit
IK4	RAMPE: alternative coatings to heavy metals that contaminate the environment	Development of coatings to replace highly contaminating tribiological layers.	National - PROFIT
IK4	ALTERA: tratamientos alternativos para sustituir el Cr y el Cd	Deposición física en fase vapor de recubrimientos sustitutivos no contaminantes	National - PROFIT
IK4	VARIPASS	MPB Aerospace y Kennametal Ibérica	National - PROFIT
IK4	VARIPASS	MPB Aerospace and Kennametal Ibérica	National - PROFIT
IK4	RAMPE: alternative coatings to environmentally contaminating heavy metals	Development of highly contaminating tribiological replacement coatings	National - PROFIT
IK4	ALTERA: alternative treatments to replace Cr and Cd	Steam phase physical deposition of non-contaminating replacement coatings	National - PROFIT
IK4	Blade repair workshop	Manufacturing and maintenance: Línea Aérea and Danobat	National - PROFIT
IK4	Blade repair workshop	Línea Aérea and Danobat	National - PROFIT
NOVALTI	OPENAER	ITP - NOVALTI-WEC	National - CENIT

Manufacturing, Processes and Materials

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
SENER	RESTAURAC	Development of a demonstrator for the restoration of degraded images due to high compression levels 2008	National - COINCIDENTE
SISTEPLANT	ICARO - composite aerostructures	Industrialisation in advanced materials - Led by Airbus, research into materials and manufacturing systems for aerostructures	National - CDTI
TECNALIA	ICARO - Innovation in advanced composite and optimised rear-end	Development of new technologies for future aircraft in composite/ Collaborations with AIRBUS, AERNNOVA, CASA ESPACIO, IDEC, SISTEPLANT, LOXIN	National - CENIT
TECNALIA	SINTONIA- Unmanned systems oriented towards minimal environmental impact	Development of technologies to improve efficiency and reduce the environmental impact of UAVs. Collaborations with BOEING R&T Europe, AERNNOVA, SENER, ASYSOL INDRA, ACITURRI, ETC	National - CENIT
TECNALIA	TARGET- Intelligent, environmentally-sustainable technologies for the Generation of Structures in composite materials	Intelligent and environmentally sustainable technologies for the manufacturing of composite structures. Collaborations with AIRBUS, AERNNOVA, MTORRES	National - CENIT
TECNALIA	PROSAVE ² - Research project in Advanced Systems for an Eco-efficient Aircraft	Advanced Systems for more eco-efficient aircrafts: Membranes, advanced materials, more efficient manufacturing technologies, etc. Collaborations with: CESA, AERNNOVA, TTT, HYNERGREEN, KRAFFT, ALME, NATURGAS, ETC	National - CENIT
WEC	OPENAER	Characterisation of laser weld in parts for aeronautical engines	National - CENIT
CTA	EXCOTERM	Corrosion defects evaluation in aeronautics using Infrared Thermography	Regional - INNOTEK
CTA	DEMETIR:	Study of thermographic techniques applied to the detection of critical defects in metal components	Regional - SAIOTEK
Grupo ITP	VANCAST - Next Generation Nozzle Guide Vane Design and Casting Technology	Technologies for the Design and Casting of the New Generation of Low-pressure Turbine Blades.	Regional - Basque Country Calls
Grupo ITP	SAGER - Large-scale Energy Storage Systems for the Electricity Grid	Development of energy storage technologies	Regional - Basque Country Calls
Grupo ITP	EUSKESTUR	Manufacturing technologies: Development of Basque excellence pole for the manufacture of radial structures for aeronautical turbines	Regional - Basque Country Calls
Grupo ITP	GENESYS		Regional - Basque Country Calls
Grupo ITP	DIALPE - Fatigue life design and verification of the vibration behaviour of gas turbine monocrystal blades	Mechanical technology: Study of fatigue and service life behaviour of small size monocrystal blades for a gas turbine.	Regional - Madrid Region
Grupo TTT	LANDING GEAR PROTECTOR. Integration of special processes in the manufacture of metal parts	Tratamientos Térmicos TTT, Ikankronitek and Iontech. Integration of special processes in the manufacture of metal parts	Regional - INTEK
IK4	EUSKESTUR: Basque collaboration project to manufacture a new generation of turbine radial structures	Modelling of manufacturing process to reduce development time and improve cathode design / PECM Engineering	Regional - ETORGAI

Manufacturing, Processes and Materials

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
IK4	IÑUDE	Aernnova	Regional - ETORGAI
IK4	EUSKESTUR: Basque collaboration project to manufacture a new generation of turbine radial structures	Modelling of manufacturing process to reduce development time and improve cathode design / PECM Engineering	Regional - ETORGAI
IK4	MANUFACTURING 0,0	Efficient management of the latest materials and by means of nonconventional electrochemical techniques	Regional - ETORTEK
IK4	MANUFACTURING 0,0	Efficient management of the latest materials and by means of nonconventional electrochemical techniques	Regional - ETORTEK
IK4	Manufacture and prediction of service life in high responsibility parts for aviation turbines	ITP & PRECICAST	Regional - INTEK
IK4	Manufacture and prediction of service life in high responsibility parts for aviation turbines	ITP & PRECICAST	Regional - INTEK
TECNALIA	Euskestur-	Generation of aerodynamic surfaces by using material deposition technologies.	Regional - ETORGAI
ALESTIS	WINDOW FRAME A380	DEVELOPMENT OF COMPOSITES	Others
ALESTIS	360° Fabric Composite	DEVELOPMENT OF COMPOSITES	Others
BURULAN	More integrated offer	A new plant for surface treatments, primer and final paint, assemblies and stapling of ball and socket joints.	Others
IK4	Augmented reality for assembling aeronautical equipment	EADS	Others
IK4	Augmented reality for assembling aeronautical equipment	EADS	Others
SENER	Definition of component admissible in carbon fibre and the effects on the fatigue life of hybrid structures		Others
SENER	Miniaturised Deployment Regulator MDR	Regulator appropriate for the deployment of small appendices or mini satellite panels	Others
SENER	Literary Actuator with potentiometers (HDRA_P)	Rotating actuator for space applications (HDRA) incorporating angular position sensors (potentiometers).	Others
TEY	Heat treatments	ITP	Others
WEC	Laser Cutting	Characterisation of optimised laser cutting parameters in aeronautical materials	Others

Testing and Others

MEMBER	ACRONYM and/or NAME OF THE PROJECT and brief description	PROJECT SUMMARY / RELEVANT DETAILS / CONSORTIUMS	CALL
SENER	Generic testbed for Guidance, Navigation and Control systems (GNC / AOCS)	Test bench	European - ESA
TECNALIA	"ASE-TB". Design and development of an Adaptive, Smart and Ecoefficient Test Bench for synchronized testing of linear actuators in the aeronautic sector.	Design and development of an Adaptive, Smart and Ecoefficient Test Bench for synchronized testing of linear actuators in the aeronautic sector.	European - CLEAN SKY-SGO
TECNALIA	PREMECCY - predictive methods for combined cycle fatigue in gas turbine blades	Fatigue tests of engine materials: Development of fatigue test rig for up to 850°C and titanium and nickel base test / Rolls Royce, Turbomeca, SNECMA, ITP, etc...	European - FP6
TECNALIA	BETS , a new concept for deorbiting satellites based on deployable tethers		European - FP7
ALTRAN	ATLANTIDA: Application of Leading Technologies to UAVs for Research and Development into Air Transit Management (ATM)	The Atlántida project tackles scientific and technological challenges for the introduction of high levels of automation in the future management of air space. This project is led by BOEING.	National - CENIT
CTA	Development of green materials - Fire certification tests for interior materials	Consortium coordinated by BOEING R&T	National - CENIT
CTA	ATLANTIDA - UAV Technologies application for ATM research & development	Consortium coordinated by BOEING R&T	National - CENIT
CTA	ALF	Optimisation and development of new tooling for accelerated life tests	Regional - SAIOTEK
CTA	SPACECAP II	Development of the spatial technologies	Regional - SAIOTEK
CTA	SIMAVANT:	Development of impact systems for the study of advanced composite materials	Regional - SAIOTEK
CTA	CARVED	Development of a test rig for the versatile characterization of dynamic parameters	Regional - SAIOTEK
ALESTIS	LEADING EDGE A400M	BIRD IMPACT COMPOSITES	Others
ALTRAN	SOLAR IMPULSE	Simulation of aircraft mission. Complete flight to Earth powered by solar panels.	Others
IK4	Thermo-mechanical fatigue tests with minimal thermo and phase gradients	CICYT	Others
NOVALTI	Turbine blades for test RIGs	PTB4++, PTB8, PTB9	Others



CTA

Facts & Figures

5

Members aggregate **turnover** and **employment** were in 2010

1255 million
and
10664 people

(directly generated in all of their
worldwide facilities)

Geographical breakdown:	Turnover (M)	Incrementos vs. 2009	Employment	Incrementos vs. 2009
Basque Country	663	4.1%	3738	-0.4%
Rest of Spain	506	11.7%	5551	12.8%
Rest of the World	86	11.0%	1375	20.0%
TOTAL	1255	7.5%	10664	8.6%

	2010	% over Sales	Average % over Sales since 1996
Members R&D investment	148 M	11,8%	17.2%
Members Exports	778 M	62%	74.2%

Cluster Dimension (2009 figures comparison): facilities in Basque Country

1.0% of the BASQUE GDP (*)	4.4% of the BASQUE Industrial GDP (*)	1.7% of the BASQUE Industrial employment (*)
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HEGAN Members Dimension (2009 figures comparison): facilities in Spain

17.0% of the SPANISH (**) aerospace TURNOVER	1.0% of the EUROPEAN (***)	24.4% of the SPANISH (**) aerospace EMPLOYMENT	1.7% of the EUROPEAN (***)	12.7% of the BASQUE (*) TOTAL RD INVESTMENT	20.7% of the SPANISH (**) aerospace RD INVESTMENT	1.2% of the EUROPEAN (***)
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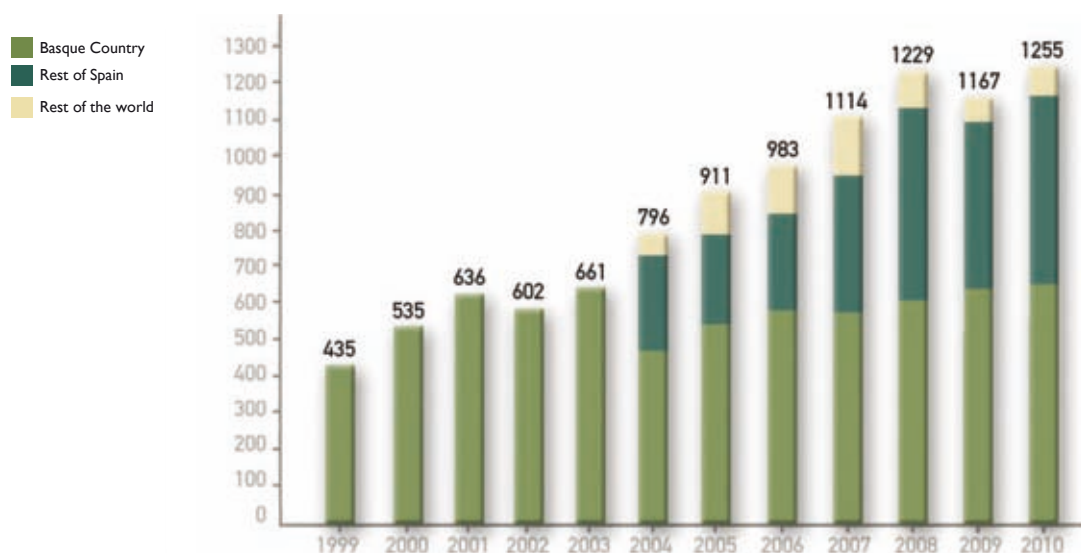
60 AEROSPACE ORGANIZATIONS

HEGAN Members (representing the 99.5% of the Aerospace turnover generated)

5 TIER1 Aerostructures Engines Space	10 COMPANIES with more than 45 people	19 SMEs with less than 45 employees	129 FACILITIES 64 in the Basque Country 48 in the rest of Spain 17 abroad (Brazil, Malta, Mexico, Romania, UK, USA)
1 AEROSPACE TECH. CENTRE (CTA) Testing (R&D and Certification)	2 R&D CORPORATIONS with 10 R&D CENTRES with aerospace activities	Non-Members	
		18 COMPANIES with aerospace activities	5 UNIVERSITIES (ETSIB: Aeronautical Intensification Course)

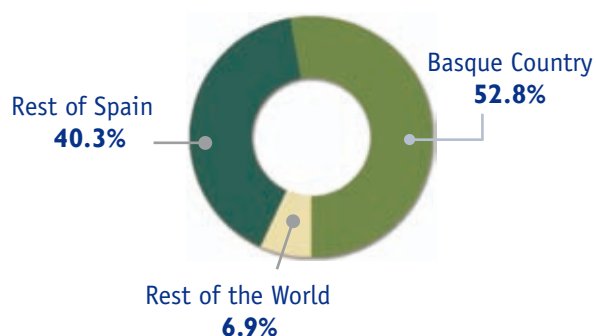
(*) EUSTAT 2009 (a), (**) TEDAE 2009, (***) ASD 2009

Aggregate turnover in M€

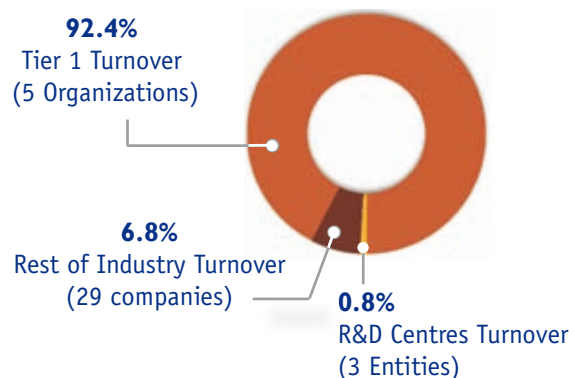


Geographical Turnover breakdown only since 2004

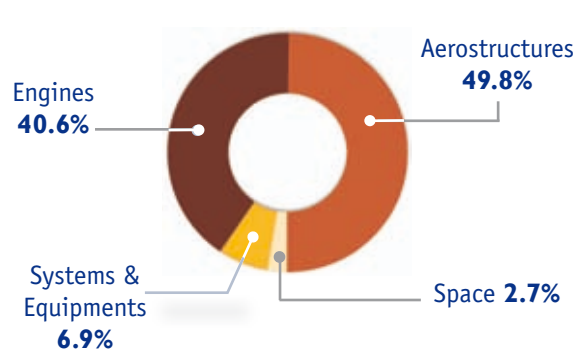
Geographical distribution of Turnover



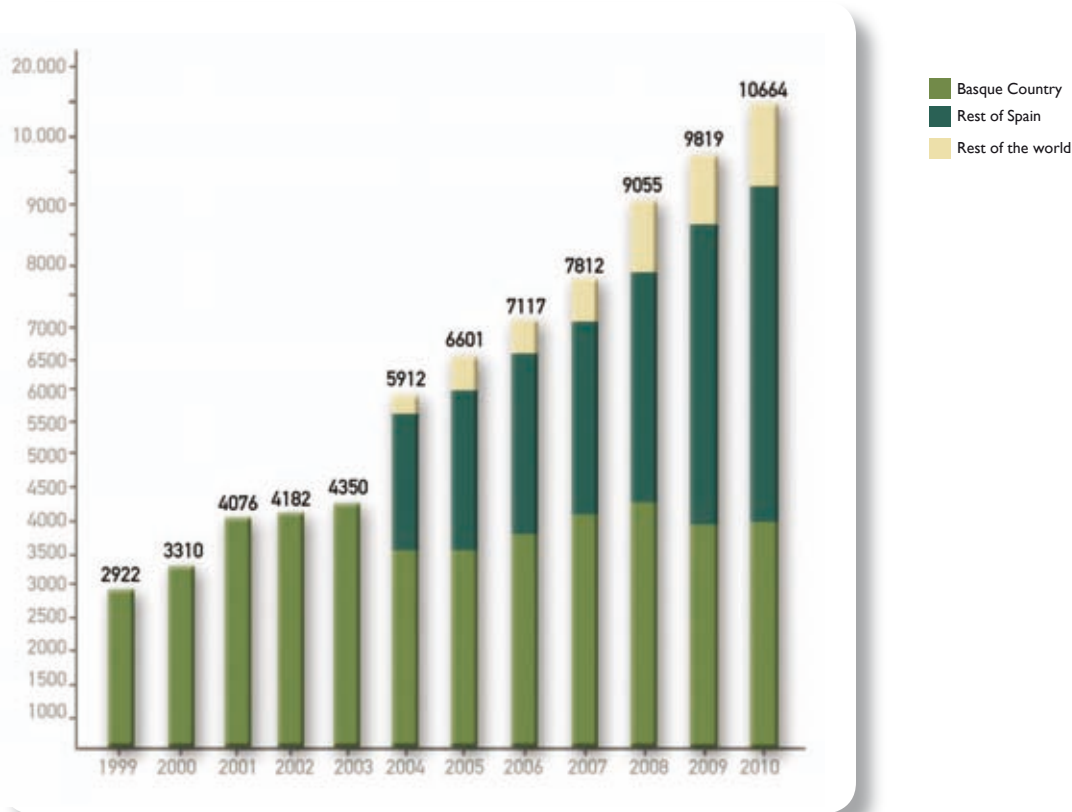
Turnover according to Member Size



Turnover according to Subsectors

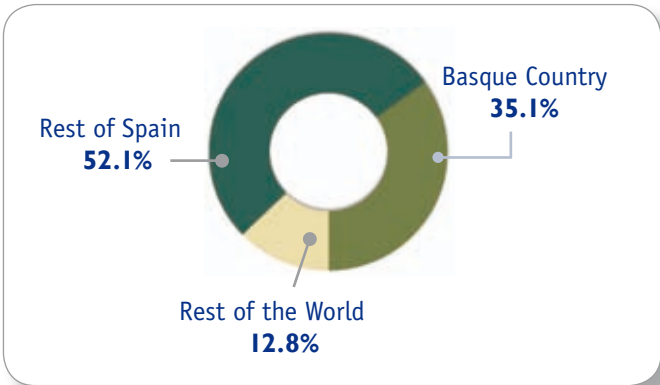


Employment

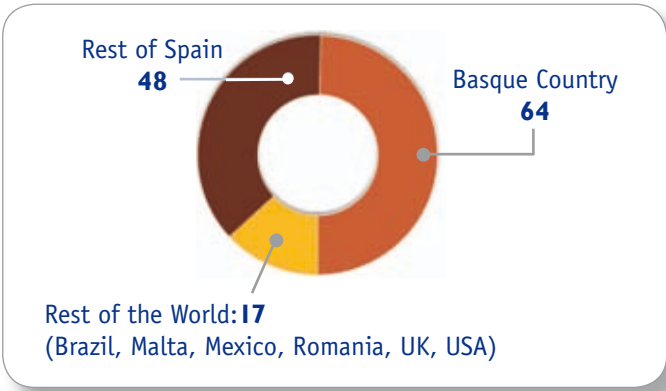


Geographical Employment breakdown only since 2004

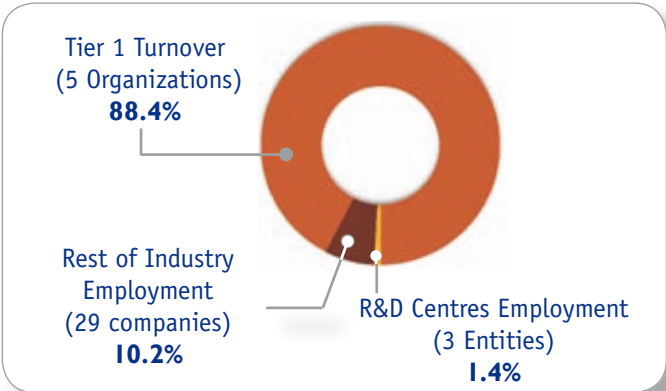
Geographical distribution of Jobs



Members Facilities

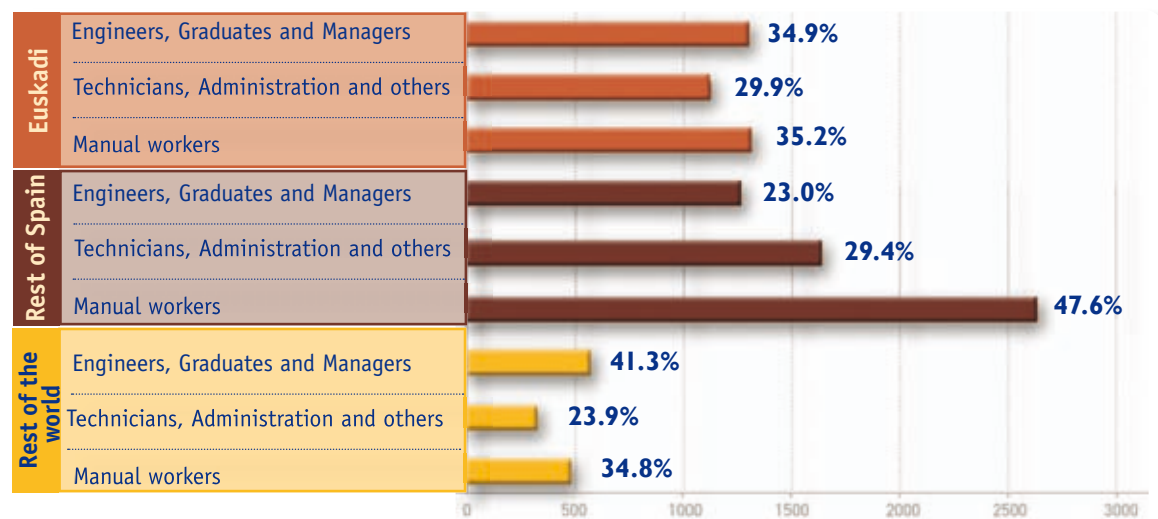


Employment according to Member Size



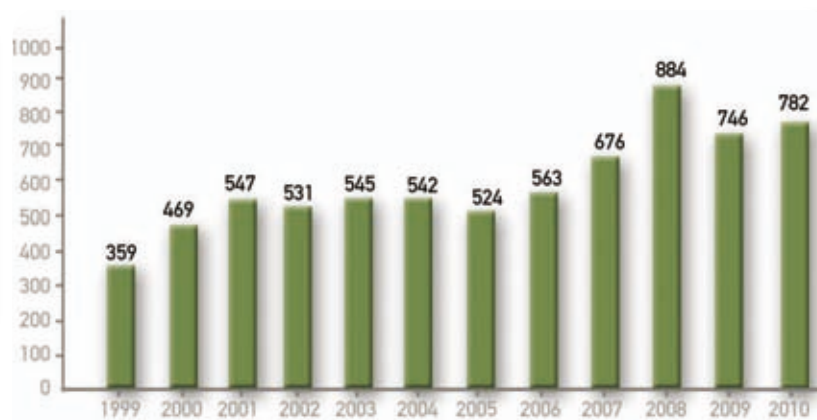
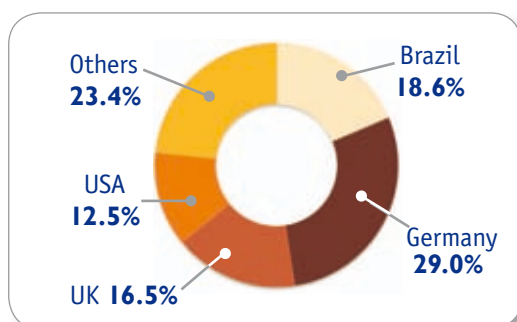
Employment according to qualification

Employment

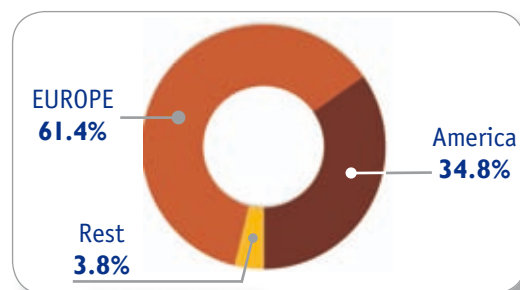


Exports according to Countries

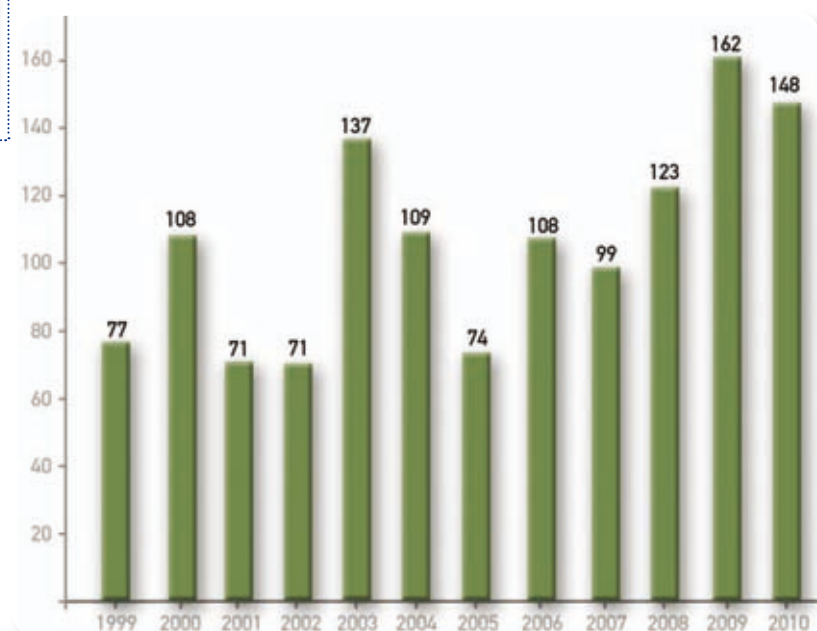
Exports in M€



Exports according to Continents



R&D in M€



R&D Investment over Sales %
11.8%

R&D Self-financing (%)
85.0%

R&D personnel
1225

AIRFRAME, ENGINE AND SPACE: SYSTEMS AND COMPONENTS	ACTURAT	AEROMOA	AEROMEC	AEROSPACE ENG. GROUP	ALBE	ALESTIS	ALTRA	ALTRON	ARATZ	ASTORKIA	BURJAN	BURJAN BEARL	DNP	ELECTRONILLO	GRUPO TIT	INDUSTRIAS GALINDO	INGENIAS	LTX GRUPO	MESIMA	METALITEC	NIVAC	NOVALTI	NUTER	OAS	SENER	SIEGEL	SISTEPLANT-GOLDGYM	TECHASA	TEY	TFS	WEC	CIA	INCA	TECNALIA
Systems integration																																		
Conceptual design																																		
Detail design engineering																																		
Big components assembly																																		
Medium components assembly																																		
Small components assembly																																		
Materials supply and management																																		
Special cutting and drilling																																		
Robotics, automation & production systems																																		
Aeroengine metallic component manufacturing																																		
Airframe metallic component manufacturing																																		
Space metallic component manufacturing																																		
Manufacturing engineering and CAD-CAM-CAE																																		
High precision machining																																		
Sheet metal work																																		
Metallic tooling design and manufacturing																																		
Investment casting																																		
Thermal and surface treatments																																		
Thermal spray																																		
Composites engineering																																		
Composites manufacturing																																		
Composites tooling design																																		
Composites tooling manufacturing																																		
Non-destructive testing																																		
Testing and certification																																		
Engine maintenance repair & overhaul																																		
Airframe maintenance repair & overhaul																																		
Electrical components maintenance repair & overhaul																																		
Other engineering services & logistics																																		
Low Cost UAVs Design, Manufacturing and Integration																																		
UAVs Design Engineering & Support																																		
Equipment Design engineering																																		
Mechanical systems																																		
Control and electronic systems																																		
High precision rubbers																																		
EN9100																																		
NADCAP																																		
QUALITY																																		
UAVs EQUIPMENT and AVIONICS																																		
Members are EN9100 certified since 2005 100% of special processes are NADCAP certified since 2007																																		
INDUSTRY																																		
Research Centres																																		



7

Programmes and Clients

Leading Programmes

AIRBUS **A350XWB** – Risk Sharing Partners: AERNNOVA, ACITURRI, ALESTIS

AIRBUS **A380** – Risk Sharing Partners: AERNNOVA, ACITURRI, ALESTIS, NOVALTI

AIRBUS **A400M** – Risk Sharing Partners: ACITURRI, ALESTIS

BOEING **747-8I/F**: AERNNOVA

BOMBARDIER **CSeries** – Risk Sharing Partner: AERNNOVA

DASSAULT **Falcon 7X** – Risk Sharing Partners: ACITURRI, ALESTIS

EMBRAER **ERJ 135/145** – Risk Sharing Partner: AERNNOVA

EMBRAER **170/190** – Risk Sharing Partner: AERNNOVA

EMBRAER **Legacy / Phenom** – Risk Sharing Partner: ALESTIS

EPI **TP400** – Consortium Member: GRUPO ITP

EUROJET **EJ200** – Consortium Member: GRUPO ITP

MTRI **MTR390E** – Consortium Member: GRUPO ITP

ROLLS ROYCE **Trent 500/900/XWB** – Risk Sharing Partner: GRUPO ITP

ROLLS ROYCE **Trent 1000** - Risk Sharing Partners: ACITURRI, GRUPO ITP

SIKORSKY **S-92** – Risk Sharing Partner: AERNNOVA



Current and former Programmes & Clients

AEROSTRUCTURES

AIRBUS A300/ 310/ 318/ 319/ 320/ 321/ 330/ 330MRTT/ 340/ 350XWB/ 380/ 400M
ATR 42, 72
BOEING 737, 747-LCF, 747-8I/F, 787, E-3 AWACS
BOMBARDIER CRJ700/ 900, CSeries
DASSAULT FALCON 7X
DORNIER DO728
EADS C101/ 212/ 295, CN235, TBM700
EMBRAER ERJ135/ 140/ 145/ 145LR/ 145XR, LEGACY EXECUTIVE/ SHUTTLE, LINEAGE,
EMB170/ 175/ 190/ 195, PHENOM
EUROCOPTER AS332, EC135, NH90, TIGRE
SIKORSKY S-92
SINO SWEARINGEN SJ30

ENGINES

EPI TP400
EUROJET EJ200
GENERAL ELECTRIC CF700, CT7, F404/ 414, GE90-14/ 115, J79, LM2500, T700
HONEYWELL AS907, HTF7000, Lycoming T53/55, Garrett TPE331/TFE731, TF50
MTRI MTR390-Enhanced
PRATT & WHITNEY F135, JT8-STD / 200, PT6 / T3, PW535 /150/810
ROLLS ROYCE BR710/715, RB211, TRENT MT30/50, TRENT-500/ 700/ 800/ 900/1000/XWB
ROLLS ROYCE NORTH AMERICA A250, A601K, M250, T63
SNECMA ATAR 9KPLUS/09C/09K50, CFM 56, SaM146
TURBOMECA ARRIEL, MAKILA

SYSTEMS & EQUIPMENT

AIRBUS Military, AIRCELLE, ALENIA, BAE Systems, BOMBARDIER, CESA, DIEHL-BGT, EADS,
EUROCOPTER, EUROFIGHTER, GOODRICH, HONEYWELL, INDRA, LATECOERE, LIEBHERR,
MARTIN BAKER, MBDA, MESSIER DOWTY, RATIER FIGEAC, ROLLS-ROYCE, SAGEM, SIKORSKY.

SPACE

ESA/NASA:

ARTEMIS, AURORA, CLUSTER, CX-OLEV, EGNOS, ENVISAT, EUREKA, GAIA, GTAB, HERMES,
HERSCHEL-PANCK, HUBBLE SPACE TELESCOPE, HIPPARCOS, INTEGRAL, ISEE-B/COLUMBUS/
CRV, METOP, MSG, ROSETTA, SOHO, SPACELAB, ULISSES, XMM-NEWTON.

OTHERS:

AMC21, AMOS3, ARABSAT 4A/B, ARIANESPACE, ASTRA1M, ASTRIUM, CIEL-2, CHINASAT9,
EXPRESS AM33/44, GE 1i/2i, GALAXY 17, GALILEO, HELIOS I/II, HISPASAT 1C/D,
KOREASAT 5, METEOSAT, MINISAT, NETLANDER, OLYMPUS, PLEIADES, SPOT-4, SYRACUSE 3B,
SUPERBIRD7, SPAINSAT, TURKSAT 3A, YAMAL 200.

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Acknowledgements

When we were thinking about 2010, we suddenly recalled some of our thoughts and memories when we were children:

Why do aircraft fly? What do things look like from above?

And we realised that, with the same curiosity we had when we were children to discover and to get answers, with the same excitement, determination and perseverance when we flew our first aeroplane, we have succeeded in tackling the difficulties generated by the crisis and we continue to work together on new aircraft and projects that will, without doubt, continue to amaze future generations.

In preparing this report we have journeyed back to our childhood, but with our cases full of experience, projects, people

Many thanks to everyone for believing that this is possible.

Agradecimientos

Pensando en el año 2010, nos han venido a la cabeza pensamientos y recuerdos de la niñez:

¿Por qué vuelan los aviones? ¿Cómo se verán las cosas desde allí arriba?

Y nos hemos dado cuenta, que con la misma inquietud que teníamos de niños por saber y conseguir respuestas, con la misma ilusión, empeño y perseverancia que pusimos en hacer volar nuestro primer avión, hemos conseguido entre todos hacer frente a las dificultades generadas por la crisis y seguir trabajando juntos en nuevos aviones y proyectos que seguirán sin duda sorprendiendo a futuras generaciones.

Este informe ha sido un viaje a la infancia, pero con un equipaje lleno de experiencia, proyectos, personas....

Gracias a todos por creer que se puede.

Esker onez

2010. urteari begira jarrita, haurtzaroko gogoetak eta oroitzapenak datozkigu burura:

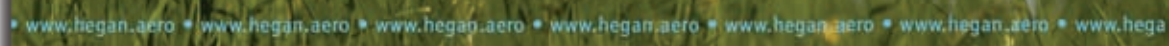
Zergatik egiten dute hegan hegazkinek? Nolakoak dira gauzak han goitik ikusita?

Eta konturatu gara, haurrak ginenean jakiteko eta erantzunak bilatzeko genuen jakin-nahi berarekin eta gure lehenengo hegazkina hegaldatzerakoan izan genituen ilusio, ahalegin eta jarraitutasun berekin, lortu dugula krisiak sortutako zailtasunei aurre egitea eta ondorengo belaunaldiak harrituta utziko dituzten hegazkin eta proiektu berrietan elkarlanean jarraitzea.

Haurtzarora egindako txango bat izan da txostena, baina eskarmentuz, proiektuz, pertsonaz... jositako ekipajearekin egindakoa.

Mila esker guztioi egin zitekeela sinesteagatik.





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