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SPANISH
EDITION

AIRBUS NEWS FOR AIRBUS PEOPLE

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Innovation

Game changers

Innovation

Setting tomorrow's standards today

The spectacular inauguration on 19 May placed the research plateaux in the spotlight, ONE met with the head of Research & Technology (R&T) Axel Krein.

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Engineering

Numerous uses for a single aircraft

Airbus Military aircrafts are examples of versatility and adaptability because of their capacity to perform different missions in different scenarios both quickly and efficiently.

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Customer

"These are fantastic planes!"

ONE took the opportunity of the latest A321 delivery to Niki in Finkenwerder to interview Niki Lauda, the pilot, airline director and three-time Formula 1 world champion.

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Editorial

Dear Colleagues,



Günter Butschek,
head of Operations.

When you join a company, you have the chance to form a first impression. Your view of the structures, procedures and corporate culture is fresh, and consequently you notice things that your colleagues might take for granted. What I saw and heard at Airbus' sites impressed me enormously: the intensity of motivation and engagement; infectious enthusiasm for the products, and the outstanding competence on all levels. These are treasures that we have to guard jealously. Better still, the second engagement survey suggests that there is even more potential to be tapped.

A very noticeable feature of Manufacturing is the transition phase all the sites are undergoing, including a shift towards more flow production and industrial standards. It is already visible on the A380, but more obvious still on the A350. You can really sense where the questions of industrialisation, production engineering and automation are now leading in the aeronauti-

cal industry. I was also impressed by the consistency of the company. In areas that use the same materials and production concepts the same standards apply across all plants and national boundaries. That makes it possible to adjust production technology to the development of the components at an early stage, right down to the design of the tools.

It is also apparent that Airbus is making great efforts to adopt lean management principles. The direction in which the company is moving is already clear, but we still have a long way to go. In this respect we can learn from the automotive industry, where I worked for many years. Lean has to be implemented consistently in all areas. The process of continuous improvement must become an essential part of daily business. Nevertheless, we must remember that everything revolves around the employees: lean must not be the responsibility of the experts alone. It only makes sense if it is experienced by everyone and becomes routine practice. Lean enhances efficiency, productivity and quality but, above all, it helps employees to re-design their workplaces on ergonomic lines, thus creating a more efficient working environment.

What is true of lean is also true of quality. It begins in the mind, continues in the processes and is reflected in the working environment. For example, in the tools we give our employees to work with. Quality should be felt in everything we undertake from the moment we pass through the gate in the morning, and include every facet of the organisation. Cooperation between colleagues and rapid help with problems should be a matter of course. It means creating an environment in which employees put quality first at their own initiative. Obviously, it's not enough to promote sensitivity to quality 'in house' alone. We have to set the same standards for our suppliers too. First of all, we have to hold frank discussions with the heads of the Centres of Excellence and Operations support functions in order to find out where we should, or must, reorganise ourselves and set things up differently. We must work as a team to develop an Operations-wide vision, and from this we must derive a roadmap. Through this process comes our clear vision and mission, and a team that makes bold decisions and implements them just as boldly. To my mind, that is the secret of success and I'll be happy to be judged by the results we achieve.

Yours sincerely,
Günter Butschek 

Environment

A coffee with... Andrea Debbané

Andrea Debbané was appointed Airbus' head of environmental affairs in February, then given the leadership of a new, integrated environment team spanning EADS in April. She met with ONE to discuss the challenges and opportunities of the combined roles.



Clear roadmap: Andrea Debbané, head of environmental affairs, has a well-defined strategy in place.

What is your main goal?

Andrea: The lifecycle of Airbus' products means that we have to stay ahead of the game, we have to be leaders. The oil disaster in the Gulf of Mexico and the nuclear problems that have followed the tsunami in Japan will increase the pace of environmental legislation. Some industries can wait for the repercussions of such events to unfold and then respond. We're already working on aircraft that will enter service in 2025, and a decade after that, so 'wait and see' is never an option. The Executive Committee has to be aware of what is coming a long way upstream.

How will you achieve that goal?

Not by watching from the sidelines or by being fuzzy on targets and progress. We have clear roadmaps for our work with the wider aviation industry through ATAG (Air Transport Action Group) and for our own initiatives. For ATAG, the reduction of emissions is paramount but we won't meet our long-term targets through airframe development alone. That is why we're helping to develop bio-fuel value chains. It isn't our business to produce fuel, but we can act as a catalyst in the commercialisation of bio-kerosene that is suitable for aviation.

What about the internal, industrial roadmap?

If we want our environmental credentials to be taken seriously by customers, political leaders and passengers we have to have our own house in order. Reduction of our environmental footprint is the key reason for the Blue 5* campaign. Clear targets and strategies will have a major impact on five crucial areas. We are a business though and, when we meet our targets, we'll be securing healthy reductions in recurring costs too.

How will the new, integrated organisation contribute?

When it comes to collecting intelligence on policy and legislation, lobbying, assessing environmental performance data and spreading best practice it just makes sense to work across the whole EADS group. I'm confident that the integrated team will make us more efficient, better informed and more influential.*

Blue 5 launches in June, it is a campaign to meet demanding targets for the reduction

/// IN BRIEF ///

Orders

169

SA	LR	A380
124	35	10

Deliveries

167

SA	LR	A380
132	30	5

Orders and deliveries end of April 2011

Quote of the month

"Star Flyer, a Japanese value-based airline, celebrates its fifth anniversary this year. It treated itself to a nice present on 15 April with an order for two A320s. It is remarkable that, despite the tragic events surrounding the March 11 earthquake, the airline decided to go ahead with the order and look ahead. Congratulations to Star Flyer and the Airbus team, led by Jiro Koda and Thomas Lelievre, who rescheduled the final meeting in Hong Kong over just four days to allow an on-time signature of the contract."

Jean-Pierre Stainnack,
vice president sales, Japan

The Airbus Corporate Foundation is joining the environmental affairs team. This heralds a longer-term plan to develop a corporate responsibility department.

of the consumption or discharge of energy, water, waste, CO2 and volatile organic compounds (VOCs). //



Innovation

Setting tomorrow's standards today

The spectacular inauguration on 19 May placed the research plateaux in the spotlight. ONE met with the head of Research & Technology (R&T) Axel Krein to ask if he was pleased with progress so far.



Axel Krein, head of Research & Technology.

Axel Krein: Yes, it is going well. We began redefining R&T three years ago and decided to organise ourselves like the aircraft programme teams. We created the R&T chief engineer organisation and now lead technology development. Another change is the establishment of R&T plateaux, which bring up to 800 people from different functions together in multi-disciplinary teams. We can perform our work more efficiently. In future, I would like to involve suppliers too. That would mean plateaux with modules for Airbus, research partners, and suppliers with common space for them to work together. This will exist later this year at the UK's National Composite Centre in Filton where Airbus, our partners and wind turbine researchers will work alongside each other. Hamburg's Centre for Applied Research, which opens in 2013, will work this way too, as will the IRT AESE (Institut de Recherche

Technologique Espace et Système Embarqués) where research will be performed on aerothermodynamic technologies, embedded energy, nano and micro structures and innovative materials.

How does the new organisation work in practice?

Take the laminar wing, which offers significant drag reduction potential, leading to reduced fuel burn and CO₂ emissions. In the past, flight physics engineers focused on perfecting the aerodynamic surface of the wing. They then handed over the concept to structure engineering and manufacturing to find out if it was financially practical to produce the wings. Now, everyone is involved right from the start, so we should arrive at the optimum solution for modern, large-scale production much further upstream.

Here now

- Geared turbofan integration is being developed and implemented on the A320neo.
- Noise analysis techniques and noise source localisation are being used in the A400M certification and flight test campaign.
- Composite structure technologies validation for A350-1000.
- Acoustic inlet technology for A350-1000 noise reduction.

Coming soon

- Open rotor integration will offer 20-25 per cent fuel burn benefit compared to the A320neo engines. Integration of the technology into the aircraft is a major architectural challenge. A flight test campaign is planned in 2016 to demonstrate technology maturity.
- Laminar wings will offer significant drag reduction. Achieving cost effective manufacturing quality remains a challenge.
- Multifunctional fuel cell technology will improve efficiency in electricity generation on board and produce oxygen depleted air that can be of use in fuel tanks or cargo compartments.

Is R&T still crucial for Airbus?

Absolutely. In the 70s and 80s, we were playing catch-up with American manufacturers, who must now regret being complacent about the threat from Europe. R&T was

essential for Airbus in creating products that could eat up the leaders' market share by offering a better value product. We did it. Now, we are the leaders but new competitors are arriving. There are extremely able scientists developing new technologies all over the world and being complacent could prove fatal to Airbus in its turn. We're too big to exist on small market shares, so we must keep one step ahead. We do have a crucial advantage though - newcomers don't have our experience and competence in developing and integrating radical technologies into a marketable product.

Has the decision to go with the A320neo had much impact on R&T?

Yes, with this decision the A30X has become an even more ambitious programme. We are now focused on a game changer with an entry into service in 2025. Of course, we can't pre-empt commercial decisions about taking a product to market that year but we do have the responsibility to make sure that the option, and the necessary technologies, exist. Given the seven-year aircraft development process, we need mature technologies by

2018. That's why we plan to have flight demonstration of laminar wing and the open rotor engine starting in 2014/2015. One of our A340s will have laminar wings grafted on to half of the existing wings and the other will have an open rotor engine measuring over four metres in diameter attached to its side. These flight test programmes will provide us with final evidence that these game-changing technologies will be mature when needed. We're working now on technologies that will become the new standard in the market.

Is the longer term R&T's sole focus?

No. Establishing a balance between mid to long-term future technologies and current requirements is vital. A lot of our projects will deliver benefits to current programmes and derivatives entering service in the next few years. Airbus wouldn't invest hundreds of millions of euros in R&T every year if the only return came after two decades.

How important a driver is the environment?

Alongside aircraft performance and costs, it is part of the leading trio. We are committed

/// IN BRIEF ///

New simulation facility opens

A dedicated facility for developing and demonstrating the next generation of simulation technologies has opened in Bristol. Housing a powerful IT laboratory and visualisation suite, the Advanced Simulation Research Centre is supported by Airbus and will provide a permanent collaborative facility for designers from a range of sectors to simulate the behaviour of physical systems.

to ending growth in CO2 emissions through aircraft operations by 2020, and by 2050 reducing them to half of the 2005 levels. Bio-fuels will become very important but new technologies will remain the key contributor to meeting this challenge. 80 per cent of our current projects will create environmental benefits on reaching maturity. /////.

Five sites, one plateau

The inauguration of the Research and Technology Plateau, on 19 May, mirrored the new facility's purpose. At five sites, in four nations, 800 employees gathered alongside 200 VIPs and five Executive Committee members to celebrate a new way of working together.

In Toulouse, Charles Champion, head of engineering, said, "The creation of the Plateau shows how important R&T is to Airbus, this is an environment that helps to make all contributors work as a team in the most efficient manner." Speeches were transmitted live to all sites before the ceremony culminated in a simultaneous unveiling of plaques to mark the occasion.



Celebrating R&T Plateau inauguration in Toulouse...



in Getafe...



and in Hamburg.



/// IN BRIEF ///

India Biodiversity Program: more than 670 employees want to make a difference

The Airbus Corporate Foundation's National representatives received 200 more applications compared to last year, including from employees in Dubai and Russia.

The two 2011 expeditions, which will run from 19 September - 9 October and from 31 October - 20 November, will continue the fantastic work accomplished by the Airbus employees during last year's expeditions. The selection process is currently underway and includes a first random draw by site followed by interviews with the Foundation representatives and feedback from Line Managers and HRBPs. The final selection will be communicated to you mid-May. Together we can do more!

AirbusTV: Coming to a screen near you!

Today, AirbusTV is broadcast to 436 screens across European sites and a further 11 newly-installed screens in the United States. The global total will reach 555 screens by year end as the network spreads to Airbus Military. AirbusTV carries corporate news translated into four languages. The network also enables local customisation as additional content can be created by country, function and site. Major events such as first flights, deliveries and air shows are broadcast live, either globally or in specific countries. "The TV network has greatly reduced the digital divide, as shopfloor workers receive news and information at exactly the same time as PC-based employees," noted Laurent Fradin, head of Airbus Web and Images. "AirbusTV has joined AirbusPeople and ONE in becoming an effective means of communication."

Nantes was selected for the manufacture of the A320neo Leap-X engine air intake. What will the impact be on the plant?

Alan Imbusch and Eric Rambaud: Our plant is being recognised for its expertise. The air intake is a major element of the power plant and must be perfectly integrated into the nacelle. It contributes to the performance of the aircraft through integrated acoustic treat-

Innovation

Another flagship product from Nantes

Airbus' Nantes site is traditionally associated with the centre wing box, but it also has unique air intake know-how. With the A320neo joining the A350XWB, A380 and A340-500/600 on the list of recipients, is the intake a new flagship product for the plant? Alan Imbusch and Eric Rambaud, both Nantes employees, spoke to ONE.



ment, the control of the shapes and the assembly. It improves the aerodynamic drag. The future looks bright, but there are always challenges.

How was Nantes qualified as an 'expert plant' for this product?

We can develop original industrial solutions through close collaboration between design offices, programmes and customers. For years Nantes has developed new concepts to stay at the technical, economic and industrial cutting edge. 2002 saw the development of the A380 air intake, which was a monobloc acoustic panel. This was a world first, as it reduced engine noise and is a key reason for passengers finding the A380 cabin so comfortable. Over the years, our know-how has grown and this probably weighed in our favour.

Proud employees: The Nantes site has extended its expertise to include air intakes.

What changes will the manufacture of the neo air intake bring?

Firstly, a visual transformation. The neo air intake will be manufactured in the same workshops as the others, where 20 years ago, we assembled centre wing boxes. Then, the very rapid ramp-up of this programme, (0 to 40 air intakes in 30 months), will lead to a flow line industrial concept which uses extensive automation, and in-line integrated curing. This will help us reach a production rate of more than 50 air intakes per month, or one every five and a half hours. That is a major challenge and meeting it will help to establish the air intake as the other speciality of the Nantes plant. /////.

Quality

A decisive step towards excellence

Quality Management at Airbus Military has spearheaded the creation of a new work group whose mission is to strengthen management by processes, their vision and to improve decision taking.



The Quality group responsible for strengthening Process Management.

The new cultural change boosts collaboration, strengthening Airbus Military's global vision with a decisive step towards achieving excellence. This makes the Company more competitive and capable of satisfying not only market needs but client demands, which is one of the organisation's main objectives. According to Javier Morán, Quality Engineering Processes and implementation coordinator at Airbus Military, "management by processes enables us to cut wastage to a minimum and increases the added value of our work as an Organisation".

Management by Processes is a tool that allows us to do our everyday work more efficiently thanks to the global vision it offers, the purpose of which is to organise work in a way that focuses on clients, both

internal or external, thus satisfying their needs. We operate in a highly competitive environment, meaning that we need to be more efficient and do away with redundancy and unnecessary investments and errors that are generally caused by lack of global vision.

Airbus Military has opted for management by processes rather than traditional management or management by functions to give it clear indicators that will allow it to take decisions based on facts and to assign its resources efficiently, while eliminating inefficiencies. One of the tangible examples of Management by Processes has been the work done by Juan Ramón Romero, Felipe San Martín and Miriam García from Quality with Isidro Rebollo from Logistics in a pilot scheme in the Logistics

area. The main results were that the various processes were correctly identified and segregated and their functions and methodologies were clarified with the activities, roles and transactions associated with the process. Before the project, certain products had been moved using the wrong methods and translations.

Another improvement obtained with this system was optimisation of processes. As a result of this, approximately 20 warehouses were eliminated, as well as other activities and system transactions that were not adding value.

In the Services area, with head of Quality Services Julián Eliasat the helm, the positive results of Management by Processes are starting to show. One of the initial difficulties with this project was differentiating between "processes" and "procedures" which are often confused. Processes are sets of connected tasks, the purpose of which is to add value and to achieve the results that clients demand. On the other hand, procedures are a set of rules or instructions associated with processes that determine how tasks are carried out to achieve the desired results. In this respect, the Quality System head José Francisco Vilar explained that "procedures are the plans for processes".

That is why Process Management looks on the Organisation as a set of processes that fit together like cogs, which, when they turn, transform needs into the desired results. Lastly, it is essential to remember that one party's results are another person's needs. //



Events

E-Motion Market Place presentation at Getafe

Getafe hosted E-Motion Market Place for the first time in Spain.

E-Motion is the Change Programme within Airbus Engineering (function E), designed to improve efficiency and compliance with deadline in Engineering. A total of 200 people took part in the event. Francine Frajut, head of Engineering of the E-Motion Change Programme, presented the Market Place. The leaders of each module then presented their projects.

On this occasion, particular emphasis was given to the achievements to date: the support given to E-Motion, to the roll-out of EVM (Earned Value Management), the development of virtual tests and improvements to the DMU process (3D electronic model).
/////



Around 200 people attended the event at the Getafe Plant.

Spain hosts Composites Day for the first time

A total of 150 people were there to celebrate the third Composites Day, an event held for the first time in Spain in Getafe.



The seminar dealt with the process to develop the Wing Cover of the A350 XWB.

The first and second editions of this event took place in Hamburg and Toulouse, respectively. Klaus Kramer, sponsor of the event, introduced the different presentations. The Forum focused on explaining the process for developing the Wing Cover for the A350 XWB through to production, highlighting the collaboration between all the Engineering and Manufacturing functions. During the morning, Alfredo Güemes, a lecturer at the Technical Aeronautical University, explained how fibre optics is used to detect faults and monitor tests. The session ended with eight themes connected to Composites. The entire engineering community attended the event, including manufacturing engineering from the United Kingdom, Spain, France and Germany. The United Kingdom has been chosen to host the next edition of Composites Day. /////

Innovation

Innovation applied to work

Getafe hosted the third edition of the Airbus Innovation Forum, which gave a general overview of the Research and Technology (R&T) in course at Airbus and new advances in innovation.



Luis Miguel Fiteni Campos, Structural Calculus Engineer at Airbus Operations.

This is the first time that this event, previously staged in Hamburg and Toulouse, has taken place in Spain. Luis Miguel Fiteni Campos, Structural Calculus Engineer at Airbus Operations, talked to ONE about the forum.

ONE: What prompted you to go to the Airbus Innovation Forum?

Luis Miguel Fiteni: I decided to go along to the Innovation Forum because I have always been attracted to new engineering trends. I am very interested in discovering the direction the aeronautics world will take in the mid to long term, because contrary

to what people think, aviation hasn't evolved all that much during the last 30 or 40 years in comparison to other sectors like computing or telecommunications and the best place to get a glimpse of the future is an Airbus Innovation Forum.

ONE: Did the Forum meet your expectations?

LMF: In general terms it did, although to be honest, there wasn't anything radically innovative in the design area. For example, I had hoped to see a delta wing plane without vertical stabilisers, or something new that I had never seen before.

/// BREVES ///



EADS takes part in the Volunteer's Cycle Day

EADS took part in a bicycle ride organized by the Fundación Adecco and Iberdrola to mark the Day of the Volunteer which is celebrated every year on the 15th of April. A total of 140 volunteers cycled 980 kilometres, the objective being to encourage the integration of people with disabilities and to promote children's rights.

Other participants in this initiative, organized as part of the European Year of Volunteering 2011, were FCC, ABB, Adecco, Enresa, Cemex, Toyota, Foster Wheeler and the Club de Excelencia en Sostenibilidad. The event took place in the Juan Carlos I park in Madrid and every kilometre participants cycled will be added to the Adecco Group "Win4Youth" program.

Every five kilometres cycled are worth one dollar and the money collected will be contributed to organizations that defend children's rights in emerging countries such as 'Se Essa Rua Fosse Minha' in Brazil, 'The Smile of the Children' in Greece and 'Roter Keil' in the Philippines.

ONE: What did you find most interesting?

LMF: I very much liked the project for a possible replacement for the A320, the so-called A30X. I think it's a very interesting piece of work and it will lead to a lot of new ideas that we will be able to implement in other aircraft in our fleet.

ONE: Do you think the information you received will be helpful for your work?

LMF: Not for current day to day work. My job is to analyse the fatigue behaviour of the fuselage of Airbus cargo planes, which was not dealt with at this Forum. Even so, it helped me to find out more about my new company, because I have only been at Airbus for a very short time. /////.

/// BREVES ///



Airbus Military Engineering and Technology Management wins an award

The seminar entitled "Powered Model Wind Tunnel Tests of a High-Offset Subsonic Turboprop Air Intake", presented by the Airbus Military Engineering and Technology Management at Airbus Military received an award on the 20th of April for the best AIAA Paper on propulsive integration in 2010.

This prize was awarded during the 46th edition of the AIAA/ASME/ASAE/ASEE Joint Propulsion Conference & Exhibit, which took place in Nashville (USA) last July. The prize-giving ceremony will be held in San Diego (USA) in August.

The award-winning seminar describes the investigations carried out into how to optimize air inflow in the A400M taking into account how a propeller functions and the perturbation effect it has on incident current.

The paper addresses both the analysis that was carried out using CFD (Computational Fluid Dynamics) and the wind tunnel tests performed in the ONERA S1 Modane wind tunnel in France. The authors of this seminar are Luis Pablo Ruiz, David E. Funes and David Perdonés, members of the Aerodynamics Department of Airbus Military Engineering and Technology Management at Airbus Military.

People

Communication Conferences

A series of communication conferences took place at Getafe on 6 and 9 May, presented by Airbus Operations SL plant manager Santiago Benito.



Santiago Benito during one of the Communications Conferences at Getafe.

The aim of these conferences was to present an up-to-date vision of the Company as a whole and the situation of the Plant to employees. Santiago Benito highlighted the achievements of 2010 in each of the areas in which the Plant is involved.

Management's objectives for 2011 were also established. These challenges include ideas such as transforming the Plant due mainly to the incorporation of the A350 Programme. Also included is the relevance of driving the cultural change (it is important to continue to implement the Lean philosophy as a new way of working and strive for Excellence in Quality). Action plans were also unveiled to encourage progress in the results of the Commitment Survey, including Non-Monetary Recognition and the Ethics and Compliance Projects. To conclude, Santiago mentioned the positive progress expected for the coming years, which will make Airbus Operations SL one of Spain's most attractive companies. //

Lean

Puerto Real embraces the Lean philosophy

"Plan 2011" to introduce Lean Manufacturing, was launched in Puerto Real at the start of the year, and results to date have been very positive thanks to some far-reaching changes made to the way teams are organized.

The change in the plant's overall outlook brought about by the introduction of Lean is due to its having ensured that in every team it is the productive areas which are now leading the way towards achieving objectives. This new focus not only encourages everyone to be more results oriented, it also involves more people in the Lean Manufacturing rollout process in the Plant. The increased dedication by office personnel to the Lean Teams and their almost one hundred per cent participation in such teams was also noteworthy. This highlights how at Airbus the Lean principle is "everyone's responsibility".

The Model Factory was also introduced in the Puerto Real Plant in January; the objective being that by the end of the year 278 employees should have attended this Academy.

Students will attend theoretical and practical sessions to enable them to fully understand the meaning of Lean, its Principles, its application and the implications it has for day to day work, as well as some of its tools. In this way Puerto Real is immersing itself in the Lean philosophy in the certainty that each and every step it takes towards achieving that philosophy is in itself a success. //

Customer

“These are fantastic planes!”

Niki Lauda took delivery of his latest A321 in Finkenwerder earlier on this year. ONE talked to the pilot, airline director and three-time Formula 1 world champion about "smart synergisms", attention to detail and his successful airline NIKI.



Why do you always collect your aircraft yourself?

Niki Lauda: When you pay for them, collect them and fly them yourself, you get a feeling for the aircraft and have a closer relationship with them.

You've got ratings for all classes of aircraft. Where does your passion for flying come from?

I've got at least 18,000 flying hours in my log, and I've even flown an A380 - a magnificent plane! But flying is only one part of my work. What fascinates me most is the airline business. I go on a flight twice a week. Then I can check whether everything is working as it should. Before the flight, I take a look at the engines, see whether the cabin is clean. As a sportsman I'm very much aware of details, and I see everything without really looking.

What is the difference between NIKI and other low-cost airlines?

We have a different strategy. We offer high quality in the cabin. Unlike other low-cost

airlines, we serve food and drinks free of charge. Newspapers are free, too. And the staff always have a pleasant smile - so I hope! We want to surprise passengers who have booked a low-price ticket. And that policy works. We have been flying for seven years; we have 20 aircraft now, and apart from the first year we have always made a profit - no easy task in the airline business.

How did you manage to achieve profitability?

I was the first one to be smart enough to make use of synergisms. I got Air Berlin to invest in my low-cost project with a 24 per cent holding until eighteen months ago, and now 49.9 per cent. We speak the same language, believe in the same culture and fly around making a profit. For this year we have set ourselves a target of four million passengers and a turnover of 380 million euros. Every cent has to be turned over twice, of course. I keep the overhead costs down. Our administrative level is very small. We have a total of 800 employees, but only about 60 in the overhead sector.

And what does Niki expect of Airbus?

Aircraft that are delivered in perfect condition and on time. With the last eight planes everything went like clockwork, within two days: test flight, signing of papers, payment, and off we went. Unfortunately the new A321 had some problems. A door had too much play and didn't close properly. Very annoying. All I can say is: the quality at delivery has to improve again in future.

What are the strengths of the Airbus aircraft?

They are fantastic aircraft; that's why we want them. I like Airbus aircraft far more than Boeings because of the bigger cabins. As a pilot I love fly by wire. I'm extremely satisfied with the quality and reliability of the A321 in operations. We fly them with an operability level of 99.9 percent.



Niki Lauda, pilot, airline director and three-time Formula 1 world champion.

Niki: facts and figures

- NIKI was founded in 2003 by Formula One champion Niki Lauda.
- In 2009, NIKI was named 'best low-cost carrier of the year' in the Reise & Preise airline survey.
- In 2010, Air Berlin acquired a 49.9 percent interest in the airline, making NIKI and Air Berlin Europe's first low-cost alliance.
- NIKI carried 3.4 million passengers in 2010.
- NIKI's main hub is Vienna International Airport.
- NIKI employs 800 people and operates about 640 flights per week.



NIKI Luftfahrt GmbH

Nacionalidad: Austriaco

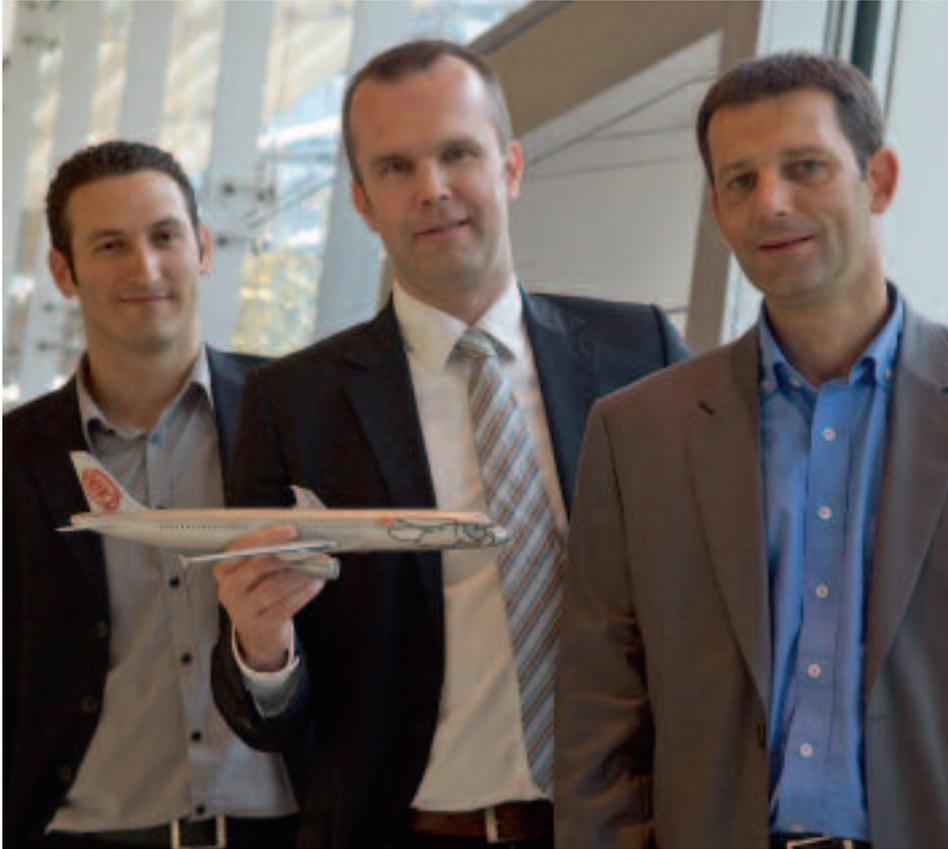
Fecha de nacimiento: Noviembre 2003

Con base en: Viena

Lider: NIKI LAUDA (CEO)



	Avión	Número de aviones	
		que opera	en pedido
Niki Luffahrt GmbH	Airbus A319	2	-
	Airbus A320	10	6
	Airbus A321	4	-



Team Niki: Airbus' Clément Tynelski-Tobiasz, customer support director, Marco Triep, regional sales director and Stephane Masselot, customisation account director.

How do you see the future of Niki?

I'm pleased to see how well the airline is doing. We can't go on growing at the rate

of four planes a year in the long term of course, but we do intend to enlarge the fleet to 30 aircraft within the next few years. We're doing a good job.

How can Airbus help you achieve that goal?

Give us new aircraft for less money! Five years ago we ordered 70 aircraft, together

Martin Klaus, Airbus contracts manager.

"Supplying aircraft to Niki requires an open mind and flexibility, you need a solution-minded attitude and a strong focus on cost and quality - following the airline's motto, "the passenger comes first!"

with Air Berlin. At first only ten of them were for Niki, then we took another ten. Fourteen of them have been delivered already, and there are another six to come.

And what recommendations can you give Airbus employees?

They should keep up their successful work and pay attention to every little detail. That is our motto at NIKI, too. Attention to detail is a fundamental requirement for customer satisfaction.

And what do you enjoy doing most when you're not taking care of your airline?

Eighteen months ago my wife had twins, Max and Mia. They keep me on the go, I can tell you. And do you know what pleases me most? That Max no longer calls me "mummy". //

Stephane Masselot, Airbus customisation account director.

"The aircraft definition and customisation process with the Niki team is always a very challenging and exciting period. They are very interested in using avionic innovation to achieve a high operational efficiency through the entire network. Niki Lauda actively participates in avionic presentations and he provides us with his pilot's point of view before entering into commercial negotiations."

Clément Tynelski-Tobiasz, Airbus customer support director.

"It was an honour to be appointed to the Niki account, there aren't many Airbus operators run by former F1 world champions. The Lauda name talks to people. I think people in Airbus work just a little harder when a request comes in from the airline! Niki is certainly satisfied with its Airbus fleet, although as a demanding customer they keep us on our toes."

Marco Triep, Airbus regional sales director.

"It is great to see how successfully Niki has operated our aircraft since it was founded. The high level of dedication and service for its passengers is supported by the efficiency and comfort of the A320 Family. Niki expects us to deliver on time and on quality to ensure it can offer high standards to customers. We look forward to continuing our partnership with Niki for many more years to come."

Engineering

Numerous uses for a single aircraft

Versatility is a basic requirement that our military clients look for to optimize their fleets and to achieve maximum efficiency. Just as an albatross flies, dives and walks, Airbus Military aircraft are examples of versatility and adaptability because of their capacity to perform different missions in different scenarios both quickly and efficiently.



A cargo handling system guides pallets into position in the cabin where they are blocked manually.

According to José Luis de la Fuente, Head of Cabin and Cargo Hold Design in Airbus Military's Engineering and Technology Management, buying a fleet of planes involves a significant economic effort on the part of our clients. As result the market needs us to ensure that from the operational point of view, the aircraft it purchases are highly versatile and able to perform missions simply and quickly. This versatility is achieved by adapting the layout of their interior.

Because of their specifications, the CN235 and the C295 are world leaders in satisfying this demand. The main characteristics of these aircraft are the rear cargo door, the palletized cargo transport system and the structural design of their interior and their systems which are geared towards such role changes. These characteristics make them both extremely versatile and adaptable.

José Luis added, "although the main purpose of the palletized cargo han-

dling system known as CHADS (Cargo Handling and Aerial Delivery System) is to transport military pallets and to deliver platforms in flight, it can also be configured to perform a variety of roles and fitted with seats for passengers or observers, mission consoles, stretchers, observation holes for photography and aerial cartography, etc."

When changing configurations, pallets are loaded through the rear cargo doors and guided along the cabin using a roller system. They are fixed in place using blocks built into the lateral guides, operated manually from the forward cabin.

As José Luis explained, one of the biggest challenges is to design pallets that comply with civil and military certification standards in terms of their capacity to withstand inertial force during flight and emergency landings, without impacting negatively on the operative weight of the

plane while ensuring that assembly and disassembly is quick and easy. Another important aspect is vibration control, especially in the case of pallets equipped with operational consoles and seats for operators.

Of all the clients who have put their trust in these systems, it is the Portuguese Air Force that has been most demanding as far as such role changes are concerned. They require aircraft with the capacity to carry two consoles with their respective mission system operators, and they must be able to carry seats and/or stretchers as well as a system for carrying the photographic camera and aerial cartography operator. They also have to be able to be turned back into a conventional military transport plane. This is all possible thanks to the pallet system designed by Airbus Military.



Highly versatile: Pallets are loaded through the rear ramp of the aircraft, enabling numerous configurations.

"The design and integration necessary to configure the cabin for all these roles needs a lot of skill and hard work. It was like designing three planes in one. All our efforts were rewarded by the magnificent results we obtained and the satisfaction of having achieved another goal in our pursuit of excellence", concluded José Luis. /////.



Engineering

A trainer for all tactical situations

Since the first P-3 Orion modified by Airbus Military flew for the Brazilian Air Force in April 2009, work to modernise these aircraft has been continuing at full speed to meet delivery deadlines for a fleet comprising nine planes.



The Tactical Trainer enables coordinated instruction for the entire crew.

This upgrade includes revitalising the structure and modernising an entire avionics system that features the Fully Integrated Tactical System (FITS), a mission support centre and a tactical mission trainer.

The tactical mission trainer allows coordinated instructions to be sent to ground crews, improving operational efficiency during real missions. It also gives

mission operators the knowledge they need to carry out maritime patrol and anti-submarine combat missions in coordination with the rest of the crew, in both normal working conditions and sensor failure situations.

The tactical trainer's main component is the instructor's workstation, which is the subsystem responsible for preparing scenarios, controlling their execu-

tion and evaluating the results obtained by operators taking part in the exercise.

The FITS mission system and the simulated environment of this tactical trainer make it possible to execute operative scenarios prepared for instruction in different tactical situations. The Stimulation, Acquisition and Simulation System which has been developed entirely by Airbus Military, provides the necessary environment for running simulations.

The system is completed by the Pilot's workstation, which consists of a console that is, in fact, a simplified version of the aircraft navigation system and the panels in the cockpit to emulate the interface with the mission system. The tactical mission trainer developed for the Brazilian Air Force in the programme has been operational since September 2010 at the base in Salvador de Bahía, where mission operators and pilots are trained in coordination tasks and mission system capabilities. Because this is a simulator-based system, it allows the P-3 to be used in operational missions rather than training flights.

While awaiting the delivery of the first upgraded P-3 planes in the programme throughout the year, the tactical trainer is making it possible to have teams trained in the mission management system so the system capacities can be harnessed immediately the aircraft are go into service.

The tactical training is, in short, an effective solution that allows new crews to be trained and for all operators' skills to be kept at optimum levels. // // // //

Programmes

The Indonesian Air Force witnesses the capacity of the C295

The Indonesian Air Force attended a demonstration of the operating capabilities of the C295 on 28 April.

The Indonesian delegation will launch a procurement tender this summer to acquire medium transport aircraft. The unit's internal capacity to accommodate a car was demonstrated at the exhibition, in which staff from the Commercial Flight Unit at Airbus Military took part. Two flights with the C295 S1 demonstration aircraft took place during the visit. In the first of these, the delegation was given a demonstration of the flight qualities of the C295. During the second flight the crew from the Indonesian Air Force made an extensive evaluation was made of the aircraft's capacities. //



The C295 demonstrated its qualities.

A330 MRTT for Royal Air Force visits UK for first time

The aircraft, one of two now flying following their conversion at Airbus Military's Madrid facilities, visited RAF Boscombe Down in a move marking the beginning of the UK phase of test activities before delivery of the first aircraft, on April 18th.

Initially specialised ground-testing will take place, leading to airborne testing through the summer, involving both aircraft, to qualify the receiver aircraft in-service with the RAF. The first aircraft of 14 on order will be delivered towards the end of the year for operation from RAF Brize Norton by the AirTanker consortium on behalf of the Ministry of Defence. The remaining 12 aircraft will be converted by Cobham in the UK with continuing engineering support from Airbus Military. Head of Airbus Military Derivatives Antonio Caramazana said: "It is an enormous pleasure to see the A330 MRTT in the home country of our biggest customer. We look forward to seeing it enter service later this year and beginning the transformation of the RAF's tanker, transport and aero-medical evacuation capabilities." //



Take off from Getafe on April 18th.



People

"It's like being a child again"

They're only 7.5 cm high but they drive millions of children and adults all over the world crazy. Sherlock Holmes, Native Americans, cowboys, princesses, footballers, Dracula, astronauts... They are just some of the clicks that belong to one of the biggest collections of these little figures in Spain. Owner, David Gómez Martín, told about this unusual hobby.



Guinness Record: David belongs to AESLIK, with which he put together the largest ever Playmobil exhibition.

This 33-year-old from Madrid works in the A330/A340 quality department at the Getafe plant. He is currently a member of the Spanish Playmobil Collectors Association (AESCLICK*), which set the Guinness Record for the biggest Playmobil exhibition ever with 68,808 figures. David organised this exhibition which consisted of a trip through the history of mankind, from prehistoric times to the conquest of space, including a 70-square-metre stadium containing 16,690 figures to commemorate Spain's victory in the Football World Cup.

ONE: How old were you when you started collecting clicks (in Spain male Playmobil figures are known as clicks and female figures as clacks)?

David G: I started collecting when I was a child, but as with so many things as you grow your interests change and you put your toys away. When you get older and discover they are still there you start feeling nostalgic and take up the hobby again, this time as a true

collector. In my case I got the bug when I was 26, and now I'm 33.

ONE: How many have you got?

DG: At the moment I've got around 1,500, as well as numerous accessories such as animals, cars, boats, planes, animals... I have a storeroom with the entire collection organised in boxes by theme.

ONE: With 1,500 clicks... are you especially fond of any of them?

DG: Without doubt, the original Pirate Ship. I keep it in its box like treasure... and a little chimpanzee. I'm very fond of it because it was lost behind the wardrobe for 20 years and is the only one I have had since I was little.

ONE: What is your favourite theme? Would you like to see any other themes that Playmobil has not yet covered?

DG: My favourite themes are medieval knights, pirates, space and the Wild West. I would like them to bring back the old space

series which is no longer made and is difficult to get hold of.

ONE: Can you tell us any anecdotes?

DG: When I was working at the FAL in Toulouse, I travelled to Madrid for the weekend to set up an exhibition. I had all the Playmobil material in the boot ready to set up the exhibition. When I got to the border the police told me to stop the vehicle and asked me for my documents. They asked me what was in the boot and I just answered "Playmobil clicks". You can imagine the looks on their faces... Surprised, they asked me to open the boot and started opening boxes and taking out clicks. It wasn't long before there were four policemen there taking clicks out of their boxes and reminiscing about the ones they had when they were little, the Pirate Ship, the Fortress, etc. In the end I gave each of them a click and they were all happy!



Tiny: some of the clicks in his collection.

ONE: What does Playmobil mean to you after all these years?

DG: Playmobil is like going back to my childhood. It is nostalgia and happy memories. It is a toy that develops children's imaginations due to its apparent simplicity.

***AESCLICK:** non-profit organisation that encourage social work through this type of collecting, cooperating with children's hospitals, shelters and children's aid charities, staging exhibitions, collecting and delivering toys to children in hospital and in need. //

Programmes

Grizzly gets go-ahead...

EADS and Airbus finalised contract amendment negotiations with OCCAR (European Organisation for Joint Armament Cooperation) and the A400M's seven launch customer nations in early April. The contract amendment implemented the changes agreed in March, securing full industrial go-ahead for the new military transporter.



"It is from a different world. The Grizzly is a jump three generations into the future."
Captain Torstein Fritsch, German Air Force.

...and thumbs up from the experts

Within days of the amendment being signed, pilots from three of the customer nations, the UK, Turkey and Germany, were flying the A400M Grizzly for the first time.

Their comments are a resounding endorsement of the new transporters' credentials - from the people who will depend on it the most demanding conditions. //



"Awesome, this is a real pilot's aircraft. It already feels like it is at production standard and there's so much space to deliver paratroops or humanitarian aid."
Squadron Leader Dave Catlow, Royal Air Force, UK.



"It is very special, powerful but without too much noise. It was very quick responding to the commands we gave and will fulfil our missions."
Major Daghlan Cil, Turkish Air Force.

/// IN BRIEF ///

Europe's first Carbon Fibre Reinforced Plastic (CFRP) recycling facility

The first European plant for industrial carbon fibre-reinforced plastic (CFRP) recycling was recently commissioned in northern Germany. A large proportion of Europe's CFRP waste will be recycled in the vicinity of Airbus' Stade plant, including waste from Airbus aircraft components made from CFRP. The Karl Meyer AG facility has a total capacity of 1,000 tons per year and uses the 'pyrolysis process' for CFRP recycling. CFRP components are cut into manageable pieces and heated to 900 °C in a large furnace without adding oxygen. The epoxy resin matrix evaporates with the heat and the carbon fibres are recovered. They are subsequently worked into milled fibres or CFRP powder. There is strong demand for these secondary raw materials. Among other applications, they are an attractive option for producing aircraft interior components and are expected to be used in the automotive and mechanical engineering industries.

New Employee Share Scheme Discounts

The EADS Employee Share Ownership Plan (ESOP) has a new discount structure, including up to 50% on EADS shares, for employees in 22 countries. The subscription period is 6-17 June 2011. For more information, go to www.ESOP.EADS.net.



Open skies

Today, global air traffic management (ATM) is fragmented and an obstacle to air transport's growth and environmental stewardship. This article takes a closer look at one of the major initiatives underway to modernise ATM, the Single European Sky.

In many places across the world, air traffic management has reached its limits, notably in terms of capacity. Airlines can no longer fully optimise fleet use; flights are often delayed; aircraft fly longer rou-

tes than necessary; and saturation in many terminal areas translates into extra flight time. To address this, the European Union and United States have undertaken ambitious and complementary ATM improvement programmes. They are known as the Single European Sky and NextGen in the United States. Airbus is closely involved in both. 

Single European Sky

Unlike the United States, Europe does not have a single sky. European airspace, which is among the busiest in the world with over 33,000 flights each day, is fragmented. National airspace is managed by a national Air Navigation Service Provider using systems and applying procedures that are not always harmonised with those of its neighbours. Fragmentation leads to lots of inefficiencies. The Single European Sky's ambition is to meet future capacity and safety needs at a European rather than national level.

Ave SESAR!

The SESAR (Single European Sky ATM Research) programme is one of the most ambitious research and development projects undertaken by the European Union. It is the technological dimension of the Single European Sky initiative.

SESAR aims to transform air traffic management. For the first time, all aviation players are involved in its definition, development and deployment.

Airbus, an SJU member since June 2009, will define and develop future onboard ATM operations and capabilities in its capacity as an aircraft integrator.

Intelligent Swimmers

Aircraft play their part in improving ATM, too.

Did you know?

According to IATA, reducing flight time by a minute globally would save almost 5 million tonnes of CO₂ every year.

SESAR joint undertaking

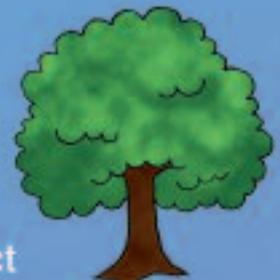
The SJU's targets are ambitious: to handle three times more traffic; improve safety by a factor of ten; cut ATM costs by 50%; and reduce environmental impact per flight by 10%.



3x more traffic



-50%



environmental impact
-10% per flight



10x more safety



“ It frustrates me that modern aircraft waste tonnes of kerosene because air traffic management has not been modernised for decades. ”

COO, customers John Leahy speaking to the Frankfurter Allgemeine Zeitung, April 2011



Today

Tomorrow

Even if retrofit solutions for existing aircraft will contribute to improving the situation in the mid-term, next generation air traffic management will only realise its full potential with help from a new generation of aircraft such as the A350 XWB, designed to be intelligent 'swimmers' within the ATM environment.

"Intelligent aircraft will be a critical element in 21st century ATM systems under development," explained head of strategy Christian

Scherer. "SESAR will reach its full potential by 2030, when totally new aircraft such as the A30X will begin to replace the current fleet."

"Growth in air traffic is unstoppable; ATM has to catch up," added Eric Stefanello, chief executive officer of Airbus ProSky. "Airbus is ready to play its part in ensuring seamless, eco-efficient air transport in a global open sky. It is not just about creating air traffic management worthy of the 21st century, but designing aircraft with capabilities that meet future operational concepts."

ProSky

Airbus launched a new subsidiary company, Airbus ProSky, in January this year. ProSky is dedicated to the development and support of modern ATM systems and will be the channel through which Airbus will contribute to the development of programmes such as SESAR and NextGen. The subsidiary will help accelerate and support their implementation, linking the programmes together by capitalising on technological, operational and commercial synergies.





A350 XWB

Efficiency takes shape

It's an exciting time for the A350 XWB, with FAL start-up just over the horizon. 2011 is a year for speed and execution: over the last few months, the programme has reached several industrial milestones on the path to maturity. Here's a wrap-up:

Nose and main landing gear enter test rig

- The nose gear is the largest set ever developed by Liebherr-Aerospace and makes extensive use of high-strength corrosion resistant materials. It is one of the first major pieces of equipment to be delivered to an A350 XWB test rig.
- Also in mid-April, Messier Dowty supplied the -900's main landing gear. The system's maturity will be tested at Filton over the next 12 months, providing evidence for certification of the landing gear and systems.
- The gear is a completely new design, meeting the programme's efficiency, environmental and operational reliability requirements. It was delivered to specification, weighing 60 kg less than the contract reference.



First major A350 wing component delivered

- The A350 XWB's first major wing component, a gear beam, arrived in Filton for testing in April. The 4.3m-long titanium beam is designed to be attached to the aircraft wing and fuselage.
- It was forged in Russia, then taken to Valencia, California for machining by the team from Aerospace Dynamics International before being shipped to the UK where it will be installed in the test rig.



A350-1000: Double celebration

- The A350-1000 team enjoyed a double celebration in April: the opening of a co-located R&T and R&D Plateau in Toulouse; and the successful closure of maturity gate three.
- The closure marks the derivative's entry into the next development phase, in which the frozen basic concept is optimised until all key requirements are met. R&T initiatives are running across Airbus in a coordinated effort to give the A350-1000 an important edge in eco-efficiency.
- The -1000 is well on-track, having already selected major work packages such as the landing gear. A major resource ramp-up is planned for 2012: the team will grow from 500 people today to over 1,300 people, making the most of expertise gained through the development of the baseline A350-900.

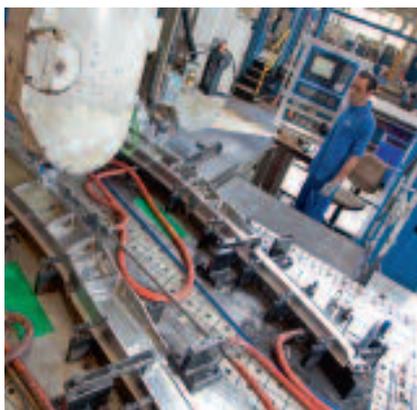
Power on for verification and validation test platform

- On 3 May, the new A350 XWB test centre in Hamburg began operations. All original cabin systems can be checked on this 'verification and validation' (V&V) platform, unique in aviation industry.
- A full-scale A350 XWB fuselage forms the platform and corresponds exactly to the A350-900 in appearance and geometry. All original systems produced by risk-sharing partners and suppliers are being installed in the test barrel.
- Many tests that used to be carried out in test flights can now be performed just as reliably on the ground - but at much less cost. In future, all major A350 XWB heads of version will also be tested on the V&V platform.



Saint Eloi delivers MSN 1 door frames

- In April, the Saint Eloi plant delivered the first set of A350 XWB door frames to Aerolia. These four-metre circular titanium parts are some of the most complex to machine. They will be fitted to aircraft MSN 1.
- Saint Eloi, the Airbus hard metals Centre of Expertise, has been involved in the programme since 2007. Aerolia called on the plant to manufacture the door frames for the first ten A350 XWB aircraft.



A350 XWB move into production (MIP), Louis Bréguet electrical unit (Toulouse)

- The 'module principle' employed at Louis Bréguet involves the assembly of several A350 XWB elements long before integration into the aircraft structure, in order to reduce costs and cycles. Harness production is a good example.

- Previously, the Toulouse electrical unit manufactured harnesses and sent them to Saint-Nazaire for assembly and integration. Now, the Louis Bréguet plant manufactures and installs a complete module with electrical harnesses and pipes made of composite materials.
- Harness manufacturing was launched at Louis Bréguet on March 10th. Delivery will be decided according to Saint-Nazaire's needs.





Highlights of the month



A400M completes low speed take-off tests

The A400M completed a challenging series of tests to determine the lowest speed possible for take-off. During the tests, performed at Istres in France, the aircraft's nose was raised until a special 'bumper' fitted to the rear fuselage struck the ground at the maximum pitch-up angle of 13°. Sparks were clearly visible as the bumper dragged along the runway.



First bio-fuel 'value chains' for Europe

A consortium, including Airbus and Romanian Air Transport TAROM, announced the first European value chain project aimed at producing bio-kerosene on March 21. The project links farmers, oil refiners and an airline to spearhead the commercialisation of sustainable bio-fuel production from Romania's indigenous *Camelina* plant (pictured). Only days later the Spanish government, Iberia Airlines and Airbus signed an agreement to develop a complete Spanish value chain.



French students choose EADS

EADS was selected as the ideal employer by thousands of French engineering students participating in an annual career prospects survey, 'Universum'. This seventh, consecutive victory suggests that EADS' consistent recruitment marketing, led by Airbus, is having a positive impact. Mikael Butterbach, Airbus' head of recruitment, is responsible for the joint work and received the award. EADS intends to recruit over 4,000 employees in 2011, with approximately 3,000 destined for Airbus.



Airbus attends 66th IFALPA conference

Airbus was a sponsor at the 66th annual meeting of the International Federation of Airline Pilots' Associations (IFALPA), which was held this year in Chiang Mai, Thailand. IFALPA represents over 100,000 airline pilots across the world. Head of flight and cabin crew training Captain Michel Landrin attended the conference. This year marks the 100th Anniversary of Thai aviation - in 1911 'Wanda', the Henri Farman IV plane, took to the skies over the Kingdom.

