

# AVIATION NEWS

01/2014 – GOALS AND PROSPECTS



## INTO THE WIND

The year 2013 saw a clear milestone in the aviation industry: the Airbus A350 XWB completed its maiden flight on June 14th. The machine started from Toulouse airport at 10 a.m. and touched down on the runway a good four hours later, landing gently. However, whilst the modern series jets are currently being prepared for production and their commercial high-altitude flight with intense tests, the experts from the Engineering field view turbulent times ahead. One reason is that Airbus has increased the benchmark for the EBIT to over 10 percent of turnover. As part of this specification, the pressure on the

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suppliers increases as can also be derived from the order volume for Engineering suppliers. This is expected to drop by more than 30 percent during the next three years. And the indicators all point in the same direction: cost pressure. Therefore, we must also increasingly observe for each order that we do not lose track of its profitability.

Although the market and mid-term predictability have proven to be more

awkward than expected, we still have to do with a market which functions. As FERCHAU AVIATION, we have dedicated ourselves to this challenging task and have positioned ourselves accordingly. Long-term planned investments in international companies, for example in France, bear fruit and we have restructured and modernised our technical divisions on the domestic market as well as making progress with the infrastructure and IT. The further development of our employees and the expansion of our partner relationships place us in a strong position to be able to compensate the imminent turmoil. Therefore, there is no viable alternative other than to keep on the route we have already taken. One consequence, for example, is the idea to categorise our partner landscape based on criteria such as performance capability, independence, willingness to participate and quality. The objective is to recognise risks during the course of the project and to control them. This topic will certainly be discussed by us and our partner companies in detail during the course of the coming months - constructively and consequently.

With their committed and successful development work, the Airbus engineering suppliers have cemented the foundations for the production of the new A 350 XWB family during the past few years. In the

future, it will become increasingly critical to improve existing functions and to provide new impulses. This is both true for the aircraft and the engineering partners' organisations too. However, here we are also supported by physics: when it boils down to it, headwind is good for uplift.



Dipl.-Ing. Harald Felten  
CEO FERCHAU AVIATION, at this year's  
Partner Meeting in Hamburg

# FERCHAU AVIATION PLANTS PARTNER CLASSIFICATION

FERCHAU AVIATION's traditional partner model is increasingly reaching its limits with the requirements to an Airbus Tier 1 Supplier. Therefore, FERCHAU AVIATION plans to categorise the suppliers according to their strengths and competences.

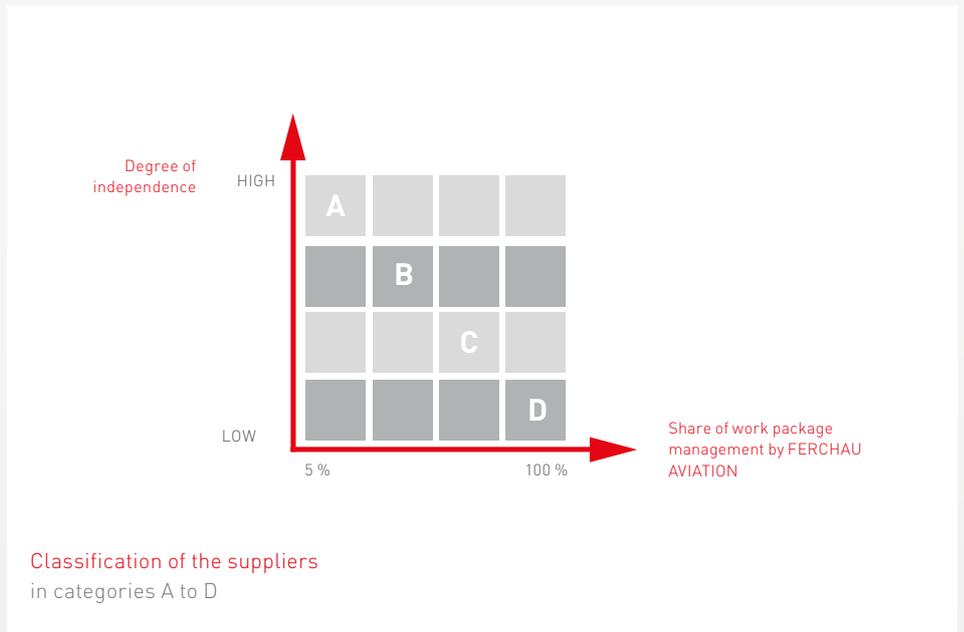
The consolidation pressure within the market also results increasingly in large work packages being commissioned. They consist of various individual work packages, incorporating up to 250 project employees and are spread over several countries. As hardly any single supplier can handle the technical tasks, the volume and the international requirements, the supplier must have a functioning supply chain. Here, it is critical to control services, interfaces and project risks in an optimum manner. During the past years, FERCHAU AVIATION therefore invested considerably in Quality Management, Project Management, its technical organisation and the international locations in order to be able to provide a comprehensive framework for its Engineering services.

However, developments also make it absolutely essential to make changes to the FERCHAU AVIATION partner model. To date, it was designed for the individual observation of all suppliers - in the future, the partners should be classified. "All our suppliers meet the technical requirements, several of them can rise to the challenges of E2S Engineering, however only a handful offer solutions for all problems", as CTO Thomas

**"Although the new system means restrictions for some partners, in total it results in improved transparency and security."**

Hucht says. Therefore, FERCHAU AVIATION - depending on the partner with different costs - may have to invest in Quality Assurance and Project Management in order to minimise the risk and meet the customer's specifications. Moreover, no projects would simply be "passed on" any longer, the responsibility for success would always remain in FERCHAU AVIATION's hands.

"Although the new system means restrictions for some partners", as Huth says, "in total it leads to better transparency and



security". The aim is to introduce official rules which all participants can use for orientation purposes. This should enable Category "A" suppliers to meet all the requirements of an E2S supplier and to control projects independently. As opposed to this, Category "D" suppliers are fully controlled by FERCHAU AVIATION for projects and their services are provided based on time & material. "We are currently in the process of refining the concept and implementing it", as CTO Hucht explains. "We want to complete a draft ready for the market mid-year and commence discussions."

According to Hucht, negotiations are planned based on partnership: "It is not our suggestion to terminate all the contracts and to draw up new contracts. "As of certain supplier pool size, the classification is a suitable means to reduce the complexity of the relationships. FERCHAU AVIATION currently has some 100 partners and suppliers. In the future, fewer than ten "A" suppliers are to 20 "B" suppliers and several "C" and "D" category supplier companies. Even if the concept will change the old

system, Hucht is certain that it will also provide advantages for the suppliers: "We create a situation for everybody concerned in which each partner is involved for his services based on clear processes and rules."



Dipl.-Ing. Thomas Hucht  
CTO FERCHAU AVIATION at this year's Partner Meeting in Hamburg

# FERCHAU AVIATION NEW YEAR'S MEETING

FERCHAU AVIATION also started the new year 2014 together with its customers and partners. The most important topic was the development of the market which entails several challenges.

The topics of consolidation and cost pressure shaped the 9th New Year's Meeting at FERCHAU AVIATION. Some 40 aviation experts from England, France, India, Spain and Germany travelled to the event, which was once again held at the Hotel Hafen in Hamburg, to discuss developments in the sector and strengthen their network. The representatives of almost 20 partner companies represented more than 75 percent of FERCHAU AVIATION's purchasing volume. They also included some new partners from France, North Germany and South Germany who were welcomed. Moreover, strategic and operative contacts from Airbus Purchasing were again present this year which, as always, was a positive asset for networking and for obtaining information.

The speeches and discussions clearly focused on the prospects for the next years. Strong cost pressure and the sustained consolidation of the suppliers specifically in the Engineering area led to many of the participants openly expressing their concern. On the one hand, this related to the E2S problems and the trend to larger work packages, but also to the thoughts introduced by CTO Thomas Hucht to categorise the partner landscape according to criteria such as performance, independence, willingness to participate and quality. Nonetheless, finally a somewhat positive feedback dominated in the comments as



well as the approach to make the best of the difficult situation for all concerned.

The same was also true for the event as such, whereby the work schedule was surprisingly disrupted: a power failure for about one hour brought most of the conference hotel to a halt and resulted in CEO Harald Felten having to moderate by candlelight - a novelty in the company's history. However, the failure of the electronics also meant that the participants had more time to get to know each other personally.

AVIATION partner landscape  
with a view to the future



AVIATION networking  
in an inspiring atmosphere

# NEW REALTIME DEVELOPMENT PLATFORM

The Munich company Avionic Design Service GmbH (ADS) presented its Avionic Developer System in an extended version. This is a configurable realtime development platform for various application cases such as rapid prototyping or for test purposes.

The new Avionic Developer System (ADS) enables two pilots to sit with a stick and pedals as in a fully fledged cockpit: "With this device, we are somewhere between a simulator and a genuine system", as ADS Managing Director Marko Beutler explains. The model is based on five touchscreen monitors, on which peripheral devices such as multi-function displays (MFDs) are depicted. Interaction with the various functions is possible here. However, in addition to the simulation of components and flight models, it is also possible to integrate genuine MFDs or other peripheral devices into the system. "The realtime development platform can thus be adapted to individual customer requirements", as Beutler reports. This concerns both the civil and the military areas. Multi-purpose control and display units are also on-board (MCDUs), with which all an aircraft's devices can be triggered. Their quality structure and operation meet the ARINC 739 Standard. Standards are also valid for the communication protocols, for example ARINC 661.

One of the advantages of the Avionic Developer System is that the platform for rapid

**"The Avionic Developer System is the platform on which I can demonstrate the changes."**

prototyping can be used. Developers use it to validate their requirements early, saving themselves time and substantial investments if their approach doesn't work. Moreover, the system supports companies when presenting their customers new components "live". Thus, for example, the system can visualise data transfer from different sources for radio equipment. "We are bringing the radio into a kind of tactical position", as Beutler reports, "which enables us to emphasise its abilities far better than a data sheet would." In turn, the radio device manufacturer can use it to show how his new device can be integrated into a complex avionics system and



Avionic Developer System

be triggered there. Finally, it serves as a test platform: the radio is triggered from the avionics system according to certain standards in order to test whether it also functions accordingly in all control units.

CAPES (Configurable Avionic Platform for Embedded System & Software) is a central component of the Avionic Developer System. "This is software architecture which is capable of transporting operational functions to various hardware platforms", as Beutler explains. Component functions such as setting a radio channel can be transported on the hardware-independent architecture and standardised protocols such as ARINC 653. "Therefore we can move the system to different manufacturers' platforms such as Thales' or Diehl's." If new developments take place, normally the systems change and the functions remain. "The Avionic Developer System is the platform on which I can demonstrate the changes".

The operational function for triggering peripheral devices using the example of a radio was developed in the entire value-added chain and incorporates the qualifications required for approval and airworthiness with the corresponding documentation dependent on their criticality. We have planned that the system grows functionally with each new customer project. Beutler has deliberately done without PowerPoint presentations. Those interested should come to Ottobrunn and enter the ADS cockpit and check for themselves how it works. Ideally in conjunction with a "challenge" - the company can demonstrate here how fast requested functions and the simulation environment are realised.

**"The software architecture CAPES is capable of transporting operational functions to different hardware platforms."**

## NEW PREFERRED SUPPLIER SEGULA AND FERCHAU COLLABORATE

The French Engineering Services Provider SEGULA TECHNOLOGIES has been a FERCHAU Engineering Preferred Supplier since the beginning of this year.

Representatives of both companies used the FERCHAU AVIATION New Year's Meeting in Hamburg to also officially sign and seal the cooperation. It has already existed since mid-2013 when both parties signed an initial Non Disclosure Agreement.

The objective of the cooperation is continuous improvement of the service offer for the Airbus Group (Airbus, Airbus Helicopters, Airbus Defence & Space) as well as for SOGERMA and AEROLIA. The partnership concentrates on striving to expand

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competences on the French market primarily in the area of mechanical engineering. Together, FERCHAU and SEGULA are able to meet their customers' high requirements as well as is possible.

FERCHAU can profit from SEGULA's market presence in

France in order to increase its own visibility and local business potential. The Engineering company employs some 6,800 employees and is active in more than 20 countries. Its annual turnover is 400 million euros.

## STRENGTHEN COMPETENCES, REDUCE COSTS

The long-term strategy pays off: 2013 was the most successful year in the history of FERCHAU AVIATION France. However, the situation remains challenging as Site Manager Thierry Faysse explains.

» Since the foundation of the Toulouse location in 2006, the French national subsidiary has grown constantly. In the meantime it has some 200 local employees. What balance do you draw for the past year?

FAYSSE: Without doubt, 2013 went extremely well for us. That mainly had to do with the many orders for Eurocopter in Marignane, specifically in the system and software development areas, with which we achieved a large share of our turnover. Moreover, we were able to optimise our organisation with a new Technical Director as well as a Senior Project Manager for the French market and were

successful in consequently curbing the costs.

» To what extent did the economic situation contribute its share to the upswing?

FAYSSE: The market environment was extremely dynamic in 2013 and Sales as well as the technical experts have worked exceptionally throughout the year in order to work off all open items. However, we do not assume that the positive framework conditions will repeat themselves during the current year. Our customers have to fight against internal cost internal specifications and the pressure will also be borne by us. Moreover, there are fewer development

programmes from Airbus than during the past years.

» How do you react to this?

FAYSSE: Our future as an Engineering supplier consists in strengthening all competence fields in such a manner that we are both able to support our major customers and the Airbus partner companies optimally.

» Isn't this particularly hard for a German company in Toulouse?

FAYSSE: I wouldn't say so as long as we don't exaggerate as a German company. Our chal-

lenge is rather that FERCHAU in France asserts itself in the top league of Engineering suppliers because ultimately the Engineering focus for Airbus is local. In its entirety, FERCHAU is a large Engineering company, but there are service providers on the Toulouse market with considerably more engineers who work for the customer. We have stabilised our position during the past years, removed hurdles and achieved growth. We must now ensure that we establish ourselves amongst the large French suppliers.



Thierry Faysse (centre) with Peter Burden (left) and Óscar Elvira (right)

### IMPRINT

#### PUBLISHED BY

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