

## MUNICH SATELLITE NAVIGATION SUMMIT 2007:

### Session 3 – Galileo At The Crossroads

The chairman, Dr. Ulrich Theis, Head of Satellite Navigation Department, German Aerospace Centre (DLR), opened session 3 “A Debate Between The Galileo Responsibles”. Before introducing the different panellists, a short description of the current situation of the programme was given by Dr. Theis. Is the Galileo programme going through difficulties? Why are there delays in the programme?



Theis, Dorides, Verhoef, Bou, Ackermann, Fainve (left to right)

Juergen Ackermann, CEO European Satellite Navigation Industries, gave a short overview of the current status of the Galileo programme. After clarifying that the former Galileo Industries company has changed its name to European Satellite Navigation Industries, Ackermann gave some brief statements on the current state of contracts, GIOVE-B and In-Orbit\_Validation (IOV). “The GIOVE Mission is implemented and working. The ground and space segment have been deployed and are operational.” Moreover a closer view on the different current activities has been given. He went on with the description of the next steps which have to be tackling in the upcoming months. He

emphasised the necessity of follow-up orders in 2007 at first in order to be able to keep the 2011 milestone. As Ackermann stated, ESN Industries needs a contractual perspective beyond IOV to stabilize the supply chain and meet the schedule.

Jean-François Bou, Speaker of the Galileo Concession Consortium, attempted to explain the intrinsic difficulties of the industry. He said that there is the need to set up action plans. Different kinds of risks have to be considered. Risk minimisation is the major intention of the concessionaire. Mainly he focused on two key issues which potentially hinder the progress.

Firstly, the market risk and the question which revenues can be captured by the concessionaire. The best way to maximize the proceeds is to have control over the access. However, there will be an open signal that “falls down like rain”. The other markets like Commercial Service (CS) and Safety of Life (SoL) are limited to some particular user communities. There is still no definitely robust business model in order to answer the questions of market risks. Even business models for projects which could have been predicted in a much more though way than for the satellite navigation market, haven’t matched satisfactorily in the past. Bou mentioned the Euro Tunnel as an example.

Secondly, there is the design and completion risk. Changes of parameters, in particular concerning the ground segment are still appearing. Moreover, the technical baseline is not yet stabilised. Some technologies will not be fully qualified at IOV phase. These risks are not insurable. System handover becomes very complex due to the noted reasons. Finally, Bou emphasised the high expectations on the conclusion of the negotiations and expressed his

understanding on the complaints about the current delays. But the Galileo concession is proving to be more complex than expected.

Carlo des Dorides, Head of the Concession Department, European GNSS Supervisory Authority (GSA), based his presentation on the agreement between GSA and the concessionaire of November 2006. He assessed this accord as a Memorandum of Understanding on a high principle level. The topics embraced in this agreement are the financial structure of the deal, the market risk, the performance risk, the completion risk, the cost overrun risk and the overall risk management architecture. However, there are still some other aspects to be addressed. These are design risk, the overall cost envelope, the third party liability regime and the integration of EGNOS. Des Dorides pointed out that he currently can't see an agreement in these open questions during the negotiations. They have been stopped due to lack of convergence in December 2006. Therefore, concession contract finalisation can't be realistically foreseen within the year 2007. The signing of the contract has to be synchronised with the timeline of IOV. A general restructure of the PPP deal would produce further complexity. But in the case of failure of the negotiation progress, the GSA will go for the best alternative.

After joking about the openness of the previous presentation Paul Verhoef, Head of Galileo Unit, Energy and Transport, European Commission, began talking about the problems of synchronisation between the technical and the political timelines. "We know what the problems are. We talk with each other. We have the right appreciation of what is going on" but everybody is getting impatient. "We have to face reality of how things are going on. When we started we did not know how to do it. There were many elements to touch on and it was the first time something like that was done. Adjustments

may be necessary. We are waiting for the members of the industry to answer. There are not only issues on the industrial side. It is also between us [...]. We have a meeting in about 9 days." Verhoef explained that at this moment it is difficult to make statements. It is not the moment to put the blame on anyone. "We do not have at the moment the clarity what future users would desire but things are being worked with a high degree of commitment." By this statement Verhoef confirmed Ruete's speech in the Opening Plenary that the problems are to become solved. Finally, he referred to the difficulties that the programme is going through and eloquently stated: "If we could start things over again we would do many things in a different way!"



Exhibition Area Max-Joseph-Saal

Didier Faivre, Head of Navigation, Directorate of Telecommunication and Navigation, European Space Agency (ESA), started with good news with respect to the achieved performance of EGNOS. There is only a lack of coverage in parts of southern Europe. From the technical point of view even Galileo is on track. GIOVE-A results are largely in agreement with the specifications. Recently, there was the decision to start GIOVE-A2 in order to stabilise the GIOVE phase in case IOV will be delayed or GIOVE-B is in trouble. The initiation of the IOV and Full Operation Constellation (FOC) launches are the next steps of the process. There are only little doubts on the technical perspective. "There is



no major technical challenge that Europe is not able to do. We can do it. We just have not demonstrated yet that we *will* do it” Faivre replied the criticism on ESA’s management with the statement “We are a young Aerospace company and we have to behave as what we are and not as Kamasutra experts.”

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