

# ICB

## Industry Consultation Body

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20 December, 2016

**Subject: DLS-COM Workshop**

Dear Mr Castelletti,

*Dear Maurizio,*

I write to you in response to your request for further submissions following the Commission's data link workshop on 24 November.

Firstly, I would like to thank the Commission for organising this valuable cross-industry gathering on such a crucial topic. As the questions and discussions showed, there are many interrelated factors and open issues to consider. This makes a DLS-COM Infrastructure Strategy difficult to develop, but much needed.

Secondly, we welcome the SESAR Deployment Manager approach in its role as Data Link Services Implementation Manager. Acting quickly and dedicating part of the 2016 call for CEF funds to datalink purposes is a good start, with a pleasing response from industry in a short timeframe. Indeed, more generally, their ambition and current progress with the recovery plan is welcomed and supported. The plan's emphasis on the need to work together with other relevant stakeholders is clear and understood.

Thirdly, and perhaps most importantly, you requested that gaps in plans going forward should be identified. Noting that some commitments (such as the regulatory update for aircraft exemptions to carry ATN/VDL2) were made at the workshop, the ICB summarises the following thirteen additional key gaps:

1. **Authority to manage rather than just coordinate and facilitate:** Whilst the early activities of the SDM in its data link recovery plan are impressive, we were left believing that the ELSA recommendation to suitably empower the role has not been completely met - and cannot under the SDM's existing legal framework. In particular, does it have 'appropriate steering responsibilities' as recommended? Has the Commission delivered the right tools to the SDM to do the job? It was clear from the response to the question on consolidation of VGS ground stations that the role of

architect requires more authority than what is currently available: if a swift consensual agreement cannot be found, then who will arbitrate?

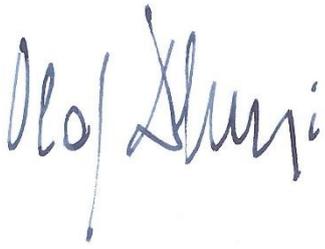
2. **Dynamic and inclusive planning and management:** Of immediate concern is the importance of communications from the SDM to all stakeholders to take advantage of the impetus provided by the recovery plan and turn it into an active implementation plan. Implementation management needs to be done irrespective of funding arrangements, and needs to cover and engage all that are fulfilling the DLS IR requirements. Dynamic management of an inclusive plan through to full implementation and achievement of satisfactory performance levels is a must.
3. **The performance and spectrum coordination function, and end-to-end certification and oversight function (from ELSA's network implementation and oversight recommendations):** These were discussed during the workshop and we trust that swift Commission action, if not already completed, will provide the necessary instruction to the Network Manager and EASA accordingly.
4. **Clarity on avionics with Best in Class performance:** Within Airspace Users there is great uncertainty over what Best in Class actually means for their specific aircraft and what the specific minimum performance level, and more generally Means of Compliance, for the avionics will be. Such understanding is needed so that Airspace Users are able to make a gap analyses of what is needed for their respective fleets and then to plan ahead and also ask the OEMs for quotes for any additional investments in data link.
5. **Accommodation of Airspace Users without AOC:** Business Aviation operators do not usually have a heavy activity in terms of Aeronautical Operational Communication (AOC). They equipped with datalink solely to comply with the DLS IR, while airlines use it also for AOC messages. While data link represents the future in terms of communication, the current mandate must be reviewed to suit all Airspace Users' needs, including both commercial operators with an AOC and others, including non-commercial ones that are without. It should propose solutions to users not having any agreement with data link service providers.
6. **Ongoing test environment for VDL2/ATN deployment:** It is clear that some areas of testing (e.g. with regards to some avionics and local 'hot spots') are not 'one-offs', but instead need ongoing testing. Whilst the performance monitoring function is essential, it is not clear how more active testing will be organised and ran.
7. **Risk management:** We must get data link right this time, but there is a chance we will fail. No risk register was presented at the workshop, but having one would build trust in deployment management.
8. **Funding mechanism to assist Airspace Users:** Whilst the CEF funds are valuable, a fair and simpler European funding process (for incentives or compensation) is needed to assist Airspace Users to invest in upgrading data link avionics. This should take into consideration the real cost benefit analysis of each user. In addition, other stakeholders should be allowed to bid for funding on behalf of their customers, e.g. OEMs for Airspace Users.
9. **Analysis of future bandwidth requirements:** Our understanding from the workshop is that i4D and other future bandwidth needs, especially those anticipated between 2025-2030, were not simulated within ELSA analysis nor the VDL2 Capacity Study. In addition, the increasing AOC bandwidth requirements were not factored in, nor is the SJU addressing this in its current baselining activity. Whilst this may make sense in terms of 'recovery', it does not provide sufficient confidence in the longer-term outlook, even if additional frequencies continue to be added in the medium-term. The DLS-COM Infrastructure Strategy must be based on realistic estimates and

projections with regards to capacity needs in order to better understand the required decision points on future technologies and services.

10. **Clarity on service management and governance:** The SDM mandate is for deployment and implementation, not ongoing service management. However, there is a common assumption of distributed service provision with single governance. Clarity on if, and how, this is progressing towards an operational reality is needed to ensure a recovery is then sustainable. The potential pitfalls in eventually moving from multiple Service Areas to a single Service Area emphasise the need for well-thought out arrangements.
11. **Clarity on the governance framework for complementary and next-generation technologies:** The SDM's current mandate does not include complementary and next-generation technologies. Clearly the ICAO GANP and Europe's ATM Master Plan are useful in setting out a roadmap but, as the debate on AeroMACS showed, these are not perfect. Accommodating different business models to create the right environment for coordinated but competitive services will be a challenge. As will a technology agnostic approach if any future solutions need to be synchronised through Common Projects. The DLS-COM Infrastructure Strategy must therefore set out how decisions on future solutions will be made. Another critical part of the strategy, given the intense debate, must be clarity on cohabitation of AOC and ATC communications for future infrastructure evolutions. This must consider both advantages (opportunity to share infrastructure development and operating costs) and drawbacks (risk of reduced quality of service for ATC communications).
12. **A clear relationship between performance, benefits and operational improvements:** Chris Dalton from ICAO was right in reminding everyone that the desired outcome is better performance. The Recovery Plan is very technically oriented, but the 'why' of deployment is crucial. The DLS-COM Infrastructure Strategy must therefore be performance-based and use a systemic approach that achieves a sustainable COM infrastructure.
13. **Links to operational services/applications implementations:** To support an efficient and reliable DLS-COM infrastructure, the strategy should not be limited to the air-ground data link technologies but also to the approach taken for operational services/applications implementations. While CPDLC operating mode naturally tends to a point-to-point connectivity between the aircraft and each individual ATC Centres (current CPDLC model, with a distributed implementation), the operating mode of ADS-C (required to support PCP AF6) is much more adapted to a 'centralised' implementation approach. This should be integrated in the strategy as a key enabler to secure a stable and defragmented DLS-COM infrastructure.

I trust that these nine areas will help drive the next steps within the Commission. The TSG is intending to proactively address the strategic aspects of this topic further in 2017 from a complete industry perspective, and so we should agree how best for the ICB to contribute to the formulation of the DLS-COM Infrastructure Strategy.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'Olaf Dlugi'. The signature is written in a cursive style with a long vertical stroke extending downwards from the end of the name.

Olaf Dlugi  
Chairman,  
Industry Consultation Body