








Statistics: DATAPP WEBINAR - CURRENT DIGITAL BARRIERS AND CHALLENGES FOR THE IMPLEMENTATION OF EBT/CBTA PROGRAMME



In the context of EBT programmes, what role does your organisation fulfill?

		Answers	Ratio
Authority		0	0 %
Operator in EBT Mixed		4	36.36 %
Operator in ATQP		0	0 %
Operator in EBT Baseline		3	27.27 %
Operator not in EBT		3	27.27 %
Software provider		2	18.18 %
Original Equipment Manufacturer (OEM)		0	0 %
Other (Please specify below)		1	9.09 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Customisation of the EBT programmes

		Answers	Ratio
Relevant		9	81.82 %
Not Relevant		2	18.18 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Evaluation of pilots and key training data gathering

		Answers	Ratio
Relevant		9	81.82 %
Not Relevant		2	18.18 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Instructor Concordance Assurance Programme (ICAP)

		Answers	Ratio
Relevant		9	81.82 %
Not Relevant		2	18.18 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Link and communication with the authorities and its role in the EBT

		Answers	Ratio
Relevant		6	54.55 %
Not Relevant		5	45.45 %
No Answer		0	0 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Lack of governance framework between training and safety departments: An additional level of coordination between safety and training departments is required. More emphasis should be placed on encouraging a close collaboration and integration between both departments.

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	9.09 %
4		3	27.27 %
5		4	36.36 %
No Answer		3	27.27 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Safety and training departments do not share a common taxonomy: In most operators, training and safety departments do not share a common taxonomy, which means that the exchange of safety events information to introduce into the training programmes is not always efficient.

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	9.09 %
4		1	9.09 %
5		6	54.55 %
No Answer		3	27.27 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S1 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines and industry best-practices on how to ease integration and governance of safety and training department cooperation in the context of EBT programmes [Applicable to L1]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	9.09 %
4		5	45.45 %
5		2	18.18 %
No Answer		3	27.27 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S2 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines and industry best-practices to integrate / fuse inner loop data (safety-relevant and training data) for customisation and contextualisation of scenario elements [Applicable to L1]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	9.09 %
4		6	54.55 %
5		1	9.09 %
No Answer		3	27.27 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S3 - Regulatory requirements / Guidance Material explicitly capturing the need for integration of the EBT programme with the operator’s management system to be used together with other relevant data sources for supporting safety risk management (SRM) and evaluate effectiveness of mitigation actions [Applicable to L1]

		Answers	Ratio
1		1	9.09 %
2		0	0 %
3		2	18.18 %
4		4	36.36 %
5		1	9.09 %
No Answer		3	27.27 %







Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S4 - Regulatory requirements to explicitly cover integration between FDM and EBT, identifying requirements for transmission of information and scope of data to be shared, similar to the FDM-related conditions captured in AMC1 ORO.FC.A.245 for ATQP programmes [Applicable to L1]

		Answers	Ratio
1		1	9.09 %
2		0	0 %
3		2	18.18 %
4		2	18.18 %
5		3	27.27 %
No Answer		3	27.27 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S5 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines and industry best-practices to standardize taxonomy between FDM methods and EBT training topics [Applicable to L2]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	18.18 %
4		3	27.27 %
5		2	18.18 %
No Answer		4	36.36 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Complexity in conducting the assessment of competencies mainly due to the large amount of data (OBs) to be captured by the instructors: Gathering of OBs and relevant contextual notes is resource-demanding and challenging during sessions, what translates into difficulties when deriving grades for the competencies.

		Answers	Ratio
1		2	18.18 %
2		2	18.18 %
3		1	9.09 %
4		3	27.27 %
5		1	9.09 %
No Answer		2	18.18 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - Compromised data quality due to flexible methodologies for competency assessment and data collection: The current methodology for performing the assessment and the grading is standard but leaves room for interpretation by each operator and conditions the assessment, as it becomes a more subjective approach that can affect the quality of the output training data.

		Answers	Ratio
1		1	9.09 %
2		0	0 %
3		2	18.18 %
4		4	36.36 %
5		2	18.18 %
No Answer		2	18.18 %







Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L5 - Lack of a metric on the difficulty of the programme or module: There is not a metric or reference to measure the difficulty of the module of the programme to contextualise the pass-fail percentages, the grading data, the concordance of the instructors and the evolution of such metrics.

		Answers	Ratio
1		0	0 %
2		2	18.18 %
3		1	9.09 %
4		4	36.36 %
5		2	18.18 %
No Answer		2	18.18 %







Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S6 - Publication and promotion by industry bodies or relevant regulatory working groups of baseline golden standards for assessment of EBT training topics [Applicable to L3, L5]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		0	0 %
4		4	36.36 %
5		5	45.45 %
No Answer		2	18.18 %







Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S7 - Regulatory requirements / Guidance Material explicitly capturing desirable capabilities for EBT software or services supporting EBT evaluations [Applicable to L3]

		Answers	Ratio
1		2	18.18 %
2		0	0 %
3		1	9.09 %
4		2	18.18 %
5		4	36.36 %
No Answer		2	18.18 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S8 - Publication and promotion by industry bodies or relevant regulatory working groups of Industry best-practices for standardised application of grading system [Applicable to L4]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	18.18 %
4		6	54.55 %
5		1	9.09 %
No Answer		2	18.18 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S9 - Regulatory requirements / Guidance Material providing example of relevant methods and analytical techniques for assessment of pilot competencies [Applicable to L4]

		Answers	Ratio
1		0	0 %
2		1	9.09 %
3		2	18.18 %
4		4	36.36 %
5		2	18.18 %
No Answer		2	18.18 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L6 - Operators lack clear guidelines on techniques for detecting and assessing instructor alignment, and current techniques, such as the creation of "Golden Standards", are very resource-intensive

		Answers	Ratio
1		0	0 %
2		2	18.18 %
3		2	18.18 %
4		3	27.27 %
5		2	18.18 %
No Answer		2	18.18 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L7 - Operators lack guidance for the implementation of the Instructor Concordance Assurance Programme (ICAP), making it challenging to implement it in an effective manner

		Answers	Ratio
1		1	9.09 %
2		1	9.09 %
3		1	9.09 %
4		4	36.36 %
5		2	18.18 %
No Answer		2	18.18 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L8 - Operators lack guidelines to monitor reliability of concordance data, what might make it difficult to identify situations of not representative concordance: As an example, there is a possibility that a forced concordance may appear due to instructors assigning a grade trying to avoid falling outside the concordance or due to the use of pre-marked templates.

		Answers	Ratio
1		0	0 %
2		1	9.09 %
3		1	9.09 %
4		4	36.36 %
5		2	18.18 %
No Answer		3	27.27 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S10 - Publication and promotion by industry bodies or relevant regulatory working groups of Industry best-practices for standardised metrics and methods to assess instructor-group assessment homogeneity (agreement) and accuracy (alignment) [Applicable to L6, L7, L8]

		Answers	Ratio
1		0	0 %
2		2	18.18 %
3		1	9.09 %
4		3	27.27 %
5		3	27.27 %
No Answer		2	18.18 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S11 - Publication and promotion by industry bodies or relevant regulatory working groups of Industry best-practices for implementation and continuous improvement of ICAP [Applicable to L6, L7, L8]

		Answers	Ratio
1		0	0 %
2		3	27.27 %
3		2	18.18 %
4		3	27.27 %
5		1	9.09 %
No Answer		2	18.18 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L9 - Operators receive limited support and recommendations from the authorities, mostly due to the lack of resources and EBT expertise. This is translated into the operators mainly relying on the inner loop for the identification of training needs

		Answers	Ratio
1		1	9.09 %
2		1	9.09 %
3		1	9.09 %
4		1	9.09 %
5		2	18.18 %
No Answer		5	45.45 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L10 - Authorities have limited guidance on data and metrics that should be shared by the operators, what prevents them for effectively monitoring of EBT programmes, their continuous improvement and enriching state-level safety risk management.

		Answers	Ratio
1		0	0 %
2		1	9.09 %
3		1	9.09 %
4		0	0 %
5		4	36.36 %
No Answer		5	45.45 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L11 - There is no framework of performance indicators to monitor the effectiveness of EBT programmes and their consistency over time. As a result, it might be difficult for the aviation system (Authorities & Operators) to proactively monitor the progressive shift in the grading curves as instructors and pilots improve or deteriorate, leading to over or downgrading.

		Answers	Ratio
1		0	0 %
2		1	9.09 %
3		1	9.09 %
4		3	27.27 %
5		1	9.09 %
No Answer		5	45.45 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S12 - Incentivise the creation of collaborative data-driven mechanisms among Authorities (e.g. Data4Safety) supporting the continuous customisation of EBT programmes through evidence gathered from external safety-relevant sources (i.e. outer loop) [Applicable to L9]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	9.09 %
4		2	18.18 %
5		3	27.27 %
No Answer		5	45.45 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S13 - Regulatory requirements / Guidance Material defining a recommended framework of KPIs for oversight of EBT programmes by Authorities, supporting the continuous evaluation of their effectiveness and acceptable instructor concordance (e.g. GM to ARO.OPS.226-d) [Applicable to L10]

		Answers	Ratio
1		1	9.09 %
2		0	0 %
3		1	9.09 %
4		1	9.09 %
5		3	27.27 %
No Answer		5	45.45 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S14 - Publication and promotion by industry bodies or relevant regulatory working groups of Industry best-practices for standardised metrics to monitor the consistency of instructor concordance along time [Applicable to L11]




		Answers	Ratio
1		0	0 %
2		2	18.18 %
3		1	9.09 %
4		2	18.18 %
5		1	9.09 %
No Answer		5	45.45 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S15 - Publication and promotion by industry bodies or relevant regulatory working groups to research on alternative means other than Part-FCL Appendix 9 to verify the accuracy of the grading system [Applicable to L11]



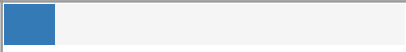

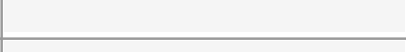

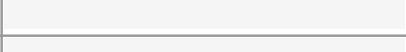
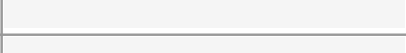
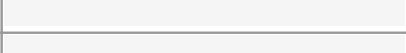

		Answers	Ratio
1		0	0 %
2		2	18.18 %
3		1	9.09 %
4		2	18.18 %
5		1	9.09 %
No Answer		5	45.45 %

Statistics: DATAPP Webinar - Unveiling key digital challenges in current operations for fuel management



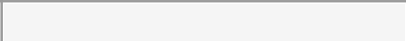
Would you like to participate in one-to-one interview and share your views with us? (Optional) If so, please provide you contact email above.

		Answers	Ratio
Yes		4	50 %
No		3	37.5 %
No Answer		1	12.5 %



In the context of fuel planning and management, what role does your organisation fulfill?

		Answers	Ratio
Aircraft Operator		8	100 %
Helicopter Operator		0	0 %
Software Vendor (Fuel Consumption Monitoring software)		1	12.5 %
Software Vendor (Flight Planning software)		0	0 %
Software Vendor (Other)		0	0 %
Hardware Manufacturer		0	0 %
Aircraft Manufacturer		0	0 %
Aviation Authority		0	0 %
Other (Please specify below)		0	0 %
No Answer		0	0 %


To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Definition of fuel data input for fuel reduction schemes (selection of data sources & parameters, and data quality)

		Answers	Ratio
Relevant		6	75 %
Not Relevant		2	25 %
No Answer		0	0 %



To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Development of statistical and predictive models for fuel reductions (standardization & generalization of fuel models, definition of statistically relevant set of data and capitalisation of knowledge)

		Answers	Ratio
Relevant		6	75 %
Not Relevant		2	25 %
No Answer		0	0 %


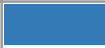
To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Validation and deployment frameworks of fuel reduction models (deployment of models into daily operations, trustworthiness of models and learning assurance approach)

		Answers	Ratio
Relevant		8	100 %
Not Relevant		0	0 %
No Answer		0	0 %

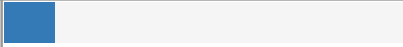
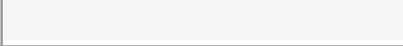
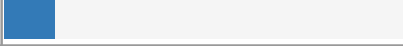
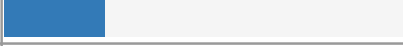
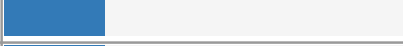
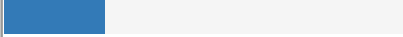
To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Definition and monitoring of safety performance for fuel schemes (definition and monitoring of SPIs, integration of fuel schemes within SMS/FDM and flexible digital solutions' requirements)

		Answers	Ratio
Relevant		7	87.5 %
Not Relevant		1	12.5 %
No Answer		0	0 %

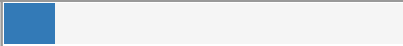

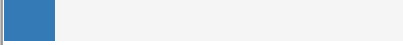
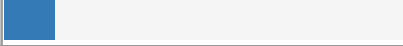
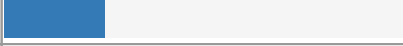
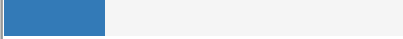
To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Collection and management of operating conditions data for fuel planning, in-flight re-planning and post-ops analysis (reliability of data, consistency of data along fuel management, governance of data sources and OCCs ecosystem)

		Answers	Ratio
Relevant		6	75 %
Not Relevant		2	25 %
No Answer		0	0 %

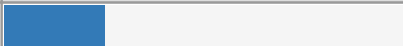
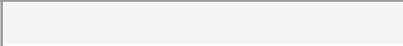

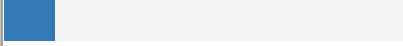
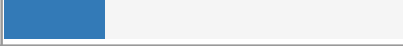
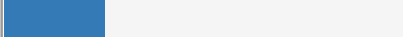
Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Limited actionability of fuel data in ACARS (limited fuel parameters with potential accuracy limitations) results in a blocking point for using this data source for fuel-related analysis

		Answers	Ratio
1		1	12.5 %
2		0	0 %
3		1	12.5 %
4		2	25 %
5		2	25 %
No Answer		2	25 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Limited granularity of parameters in ACARS (only collected at specific points of the flight) results in a blocking point for using this data source for specific fuel-related analysis

		Answers	Ratio
1		1	12.5 %
2		1	12.5 %
3		1	12.5 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Delayed availability / transmission of FDM data (not available in real-time or received with delays) results in a blocking point for using this data source for fuel-related analysis

		Answers	Ratio
1		2	25 %
2		0	0 %
3		1	12.5 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - Current FDM data governance results in a blocking point for using this data source for fuel-related analysis

		Answers	Ratio
1		0	0 %
2		2	25 %
3		2	25 %
4		1	12.5 %
5		1	12.5 %
No Answer		2	25 %


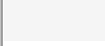
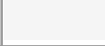



Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L5 - Insufficient set of parameters outlined in CAT.OP.MPA.185 to implement fuel reductions (off-block fuel, take-off fuel, MINIMUM FUEL declarations, MAYDAY MAYDAY MAYDAY FUEL declarations, fuel after touchdown, on-block fuel)

		Answers	Ratio
1		1	12.5 %
2		2	25 %
3		0	0 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

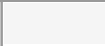





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L6 - Manually collected data is not easily processed and managed, as it is not commonly digitalised and/or entails too much effort for its analysis due to data quality

		Answers	Ratio
1		1	12.5 %
2		0	0 %
3		0	0 %
4		3	37.5 %
5		2	25 %
No Answer		2	25 %


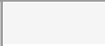
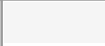



Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L7 - Regulation is not explicit on which parameters should be recorded and stored for future implementations of Basic Fuel Scheme with Variations or Individual Fuel Schemes, making it challenging to anticipate to compliance with the minimum 2 years of data required for such fuel reduction schemes

		Answers	Ratio
1		2	25 %
2		0	0 %
3		0	0 %
4		1	12.5 %
5		3	37.5 %
No Answer		2	25 %

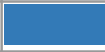



. : L8 - Minimum accuracy requirements for fuel-related parameters are not defined to ensure data quality for any fuel-related analysis and/or application

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		2	25 %
5		3	37.5 %
No Answer		2	25 %





. : L9 - There are inconsistencies identified among same fuel parameters derived from different sources (ACARS vs. FDM data) and there are no guidelines on how these should be prioritised to support fuel reduction schemes

		Answers	Ratio
1		1	12.5 %
2		0	0 %
3		0	0 %
4		3	37.5 %
5		2	25 %
No Answer		2	25 %





. : L10 - There are common data quality issues from fuel data streams, such as errors in sensors, degradations, spurious peaks, or lack of granularity, with limited regulatory provision on what is acceptable and guidance on how should be addressed

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	25 %
4		2	25 %
5		2	25 %
No Answer		2	25 %





**Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S1 - Publication and promotion by industry bodies or relevant regulatory working groups of Industry best-practices that establish minimum requirements and selection criteria of fuel-related data for specific fuel-related analysis and models [Applicable to all limitations]**

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		2	25 %
5		3	37.5 %
No Answer		2	25 %






**Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S2 - Collaborate with industry experts / operators to define a comprehensive set of fuel parameters for each fuel scheme [Applicable to L5 and L7]**

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		0	0 %
4		4	50 %
5		1	12.5 %
No Answer		2	25 %




Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S3 - Publication and promotion by industry bodies or relevant regulatory working groups of Industry best-practices for data validation guidelines to address data quality issues and ensure consistency and reliability across parameters [Applicable to L8, L9 and L10]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	25 %
4		1	12.5 %
5		3	37.5 %
No Answer		2	25 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S4 – Regulatory requirements / Guidance Material accounting for specificities in regard with validation of fuel data (data reliability) by the adoption of EUROCAE ED-76(A) standards or similar standards [Applicable to L8, L9 and L10]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		1	12.5 %
5		1	12.5 %
No Answer		3	37.5 %




Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - There is limited guidance material or regulatory references to develop statistical or analytical models to justify specific fuel reductions, making it difficult for operators and Authorities to define an acceptable framework of models that justify reductions

		Answers	Ratio
1		0	0 %
2		0	0 %
3		0	0 %
4		4	50 %
5		2	25 %
No Answer		2	25 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - The regulation is restrictive and not very explicit about the possibilities of generalization of statistical analyses or other models (extrapolation between aircraft tails or operational contexts) which may make it difficult to adopt certain reductions in the representativeness of the data at the required granularity even with the 2 years of data

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		1	12.5 %
4		2	25 %
5		2	25 %
No Answer		2	25 %

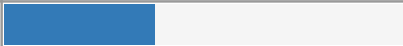



Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - The regulation is not explicit as to what is considered "statistically" relevant, making it difficult to define the minimum sample data to be used to build the reduction models

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		4	50 %
5		0	0 %
No Answer		3	37.5 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - Operators have limited availability of historical statistically relevant data for fuel reduction models

		Answers	Ratio
1		2	25 %
2		2	25 %
3		0	0 %
4		2	25 %
5		0	0 %
No Answer		2	25 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L5 - Difficulty in accessing algorithm details for statistical estimations and models integrated in acquired software (e.g. flight planning systems) resulting in difficulties in the post-ops analysis of the associated fuel metrics

		Answers	Ratio
1		0	0 %
2		3	37.5 %
3		0	0 %
4		2	25 %
5		1	12.5 %
No Answer		2	25 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L6 - Lack of adequate promotion and change management mechanisms around the introduction and explanation of models/statistics that justify fuel reduction schemes results in a lack of visibility and distrust on the part of the pilots, who mitigate reductions on a discretionary basis

		Answers	Ratio
1		0	0 %
2		2	25 %
3		1	12.5 %
4		2	25 %
5		1	12.5 %
No Answer		2	25 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Regulatory requirements / Guidance Material explicitly capturing detailed guidelines for operators and authorities to develop statistical models for fuel reductions [Applicable to L1]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		3	37.5 %
5		2	25 %
No Answer		2	25 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S2 - Regulatory requirements / Guidance Material explicitly establishing a standardized framework for generalizing statistical models across different aircraft or operational contexts [Applicable to L2]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		3	37.5 %
5		2	25 %
No Answer		2	25 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S3 - Regulatory requirements / Guidance Material explicitly capturing what constitutes statistically relevant data, considering factors like representativeness, completeness, and timeliness [Applicable to L3 and L4]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		2	25 %
5		3	37.5 %
No Answer		2	25 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S4 - Publication and promotion by industry bodies or relevant regulatory working groups of establish standardized statistical methods and best-practices for advanced fuel-reduction models other than statistical [Applicable to L1 and L2]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		2	25 %
5		2	25 %
No Answer		3	37.5 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S5 - Encourage data sharing and collaboration among operators to enhance the availability of statistically relevant data for fuel reduction models [Applicable to L4]

		Answers	Ratio
1		1	12.5 %
2		2	25 %
3		0	0 %
4		2	25 %
5		1	12.5 %
No Answer		2	25 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S6 - Regulatory requirements / Guidance Material explicitly capturing the need for transparency in algorithm details for fuel reduction schemes when these are provided by vendors, at the level required to ensure traceability, support decision-making and ease oversight by Authorities [Applicable to L5 and L6]

		Answers	Ratio
1		1	12.5 %
2		1	12.5 %
3		0	0 %
4		1	12.5 %
5		3	37.5 %
No Answer		2	25 %




Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant)
: L1 - Lack of technical expertise or manpower, coupled with little guidance on fuel reduction model development (statistical or others), hinders the ability of operators to propose and adopt more advanced fuel reduction plans.

		Answers	Ratio
1		0	0 %
2		2	25 %
3		1	12.5 %
4		2	25 %
5		3	37.5 %
No Answer		0	0 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - There is no framework to ensure a trustworthy deployment of data-driven models (statistical or any other potential future solution) that support fuel-reduction schemes, as it could be guarantees on stability and robustness of models, assurance of results through performance verification or traceability of data used for the models, which may make it difficult to investigate more advanced models for individual schemes, either by the Authority for approval or by the operator.

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		2	25 %
5		3	37.5 %
No Answer		0	0 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Regulatory requirements / Guidance Material explicitly capturing detailed guidelines for operators and authorities to ensure trustworthy deployment of fuel-related models (both statistical and other AI-applications) in alignment with future industry standards (e.g. EUROCAE WG-115 / SAE G-34) [Applicable to all limitations]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		5	62.5 %
5		2	25 %
No Answer		0	0 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Proposed Safety Performance Indicators (SPIs) in GM2 CAT.OP.MPA.180 are not complete enough to capture a comprehensive range of safety considerations to justify and monitor equivalent level of safety in all possible individual fuel reduction schemes

		Answers	Ratio
1		0	0 %
2		2	25 %
3		0	0 %
4		4	50 %
5		1	12.5 %
No Answer		1	12.5 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - There are limited guidelines for definition and continuous monitoring of baseline safety performance indicators (SPIs) for Operators to evaluate deviations from the equivalent level of safety and Authorities to support the continuous oversight of fuel reduction schemes

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		5	62.5 %
5		1	12.5 %
No Answer		1	12.5 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Lack of manpower/resources make it challenging for operators to define and monitor safety baseline performance under fuel reduction schemes

		Answers	Ratio
1		0	0 %
2		2	25 %
3		0	0 %
4		2	25 %
5		3	37.5 %
No Answer		1	12.5 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - Regulatory requirements for fuel consumption monitoring systems on individual fuel schemes are too specific and do not allow for flexibility, as it refers to ICAO Doc 9976 requirements, which might not be relevant for all kind of operational contexts

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		1	12.5 %
5		3	37.5 %
No Answer		1	12.5 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L5 - There is limited guidance or regulatory provisions for the governance and organisational management of fuel initiatives within the SMS / FDM departments, being coordination mechanisms between fuel and safety-related departments sometimes ineffective (e.g. not clear reporting mechanisms, ineffective data exchange, duplicated analytical processes...)

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		1	12.5 %
4		2	25 %
5		2	25 %
No Answer		2	25 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Publication and promotion by industry bodies or relevant regulatory working groups of detailed framework of SPIs to measure and monitor the equivalent level of safety, applicable to specific fuel reductions [Applicable to L1, L2 and L3]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		1	12.5 %
4		4	50 %
5		1	12.5 %
No Answer		1	12.5 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S2 - Incentivise the creation and promotion of collaborative data programmes (e.g. Data4Safety) that provides factual-based information at national or european level for the monitoring of equivalent level of safety for fuel-related initiatives, definition of thresholds and for the analysis of specific trends [Applicable to L1, L2 and L3]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		4	50 %
4		1	12.5 %
5		2	25 %
No Answer		1	12.5 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S3 - Study some additional regulatory provisions that allow for more flexibility regarding the requirements specified for fuel consumption monitoring systems, in accordance with the operational nature of operators and the expected fuel initiatives [Applicable to L4]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		3	37.5 %
4		1	12.5 %
5		2	25 %
No Answer		1	12.5 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S4 - Regulatory requirements / Guidance Material explicitly capturing standardized reporting framework and requirements for fuel and safety-related parameters to authorities [Applicable to L1 and L2]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		2	25 %
5		2	25 %
No Answer		1	12.5 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S5 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines to promote the effective integration of fuel initiatives and the monitoring of equivalent level of safety within the SMS/FDM department [Applicable to L5]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		1	12.5 %
4		4	50 %
5		1	12.5 %
No Answer		1	12.5 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Limited availability of data sources for operating conditions data (e.g. anticipated meteorological conditions, anticipated delays...

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	12.5 %
4		4	50 %
5		1	12.5 %
No Answer		2	25 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - There are no detailed guidelines for assessing the reliability, completeness and accuracy of all required operating conditions data (e.g. reliability of anticipated delays data)

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	25 %
4		2	25 %
5		2	25 %
No Answer		2	25 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - There is inconsistent availability in the data sources for operating conditions data used for fuel planning and post-ops analysis (e.g. fuel statistical model developments), which is a potential barrier to the development and deployment of more advanced fuel reduction models

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	25 %
4		2	25 %
5		2	25 %
No Answer		2	25 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - There is inconsistent availability in the data sources for operating conditions data used for fuel planning and post-ops analysis (e.g. fuel statistical model developments, which makes it difficult to compare data used at the planning stage with actual flight conditions (re-validation of the assumptions during planning)

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		0	0 %
5		3	37.5 %
No Answer		2	25 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L5 - There is a dispersed / federated ecosystem of digital applications and solutions that use operating conditions data from different sources (e.g., pilots and Dispatch use different sources for planning and management), what might be a challenge to ensure common governance and traceability on decision-making at different fuel management stages

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	25 %
4		2	25 %
5		2	25 %
No Answer		2	25 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines that establish minimum requirements for operating conditions data sources in collaboration with authorities and stakeholders for specific fuel reduction applications [Applicable to L1, L2, L3 and L4]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	25 %
4		2	25 %
5		2	25 %
No Answer		2	25 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S2 - Regulatory requirements / Guidance Material accounting for specificities in regard with validation of operating conditions data (data reliability) by the adoption of EUROCAE ED-76(A) standards or similar standards [Applicable to L2, L3 and L4]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		3	37.5 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

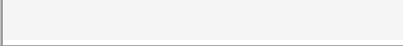
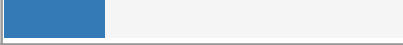
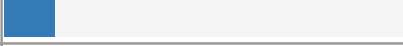
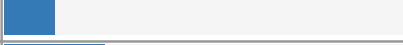
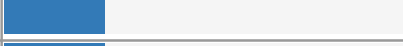
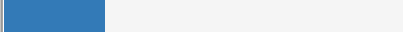
Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S3 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines to promote the implementation of systems that consolidate operating conditions data from various sources into a centralized platform [Applicable to L3 and L4]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S4 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines to define clear communication channels / OCCs to share operating conditions data seamlessly [Applicable to L5]

		Answers	Ratio
1		0	0 %
2		1	12.5 %
3		2	25 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S5 - Publication and promotion by industry bodies or relevant regulatory working groups of guidelines on coordination between pilot/dispatch/fuel team to ensure consistent data usage across different phases (planning, in-flight re-planning, management, and post-ops analysis) [Applicable to L5]

		Answers	Ratio
1		0	0 %
2		2	25 %
3		1	12.5 %
4		1	12.5 %
5		2	25 %
No Answer		2	25 %

Statistics: DATAPP Webinar - Overcoming limitations and unleashing the potential of Flight Data

In the context of flight data usage, what role does your organisation fulfill?

		Answers	Ratio
Aircraft Operator (<10 aircraft)		0	0 %
Aircraft Operator (10-50 aircraft)		2	15.38 %
Aircraft Operator (>50 aircraft)		7	53.85 %
Helicopter Operator		0	0 %
Software Vendor (FDM)		1	7.69 %
Software Vendor (Other)		1	7.69 %
Equipment Manufacturer (FDR, QAR, etc.)		0	0 %
Equipment Manufacturer (Other)		0	0 %
Aircraft Manufacturer		1	7.69 %
Civil Aviation Authority		1	7.69 %
Other (Please specify below)		0	0 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : The Data Frame Layout (DFL)

		Answers	Ratio
Relevant		10	76.92 %
Not Relevant		3	23.08 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Transitioning to the cloud

		Answers	Ratio
Relevant		6	46.15 %
Not Relevant		7	53.85 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Event definition and documentation

		Answers	Ratio
Relevant		10	76.92 %
Not Relevant		3	23.08 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Fusion of flight data with other data sources

		Answers	Ratio
Relevant		9	69.23 %
Not Relevant		4	30.77 %
No Answer		0	0 %

To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Data Governance (access policies & data integration)

		Answers	Ratio
Relevant		10	76.92 %
Not Relevant		3	23.08 %
No Answer		0	0 %

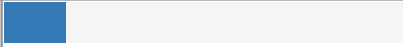
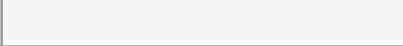
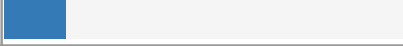
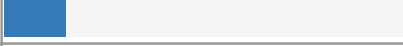
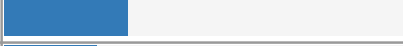
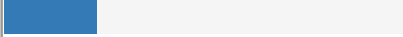
To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Extra topic: Data availability

		Answers	Ratio
Relevant		8	61.54 %
Not Relevant		5	38.46 %
No Answer		0	0 %

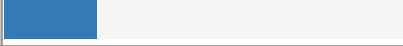
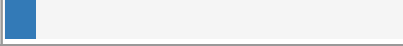

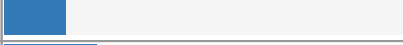

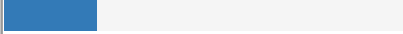
To adapt the length of this survey, please select all topics that are relevant or applicable to your work or that of your organisation (non-relevant topics will not be shown later on): : Extra topic: Flight data usage in other safety-relevant processes

		Answers	Ratio
Relevant		9	69.23 %
Not Relevant		4	30.77 %
No Answer		0	0 %

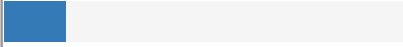
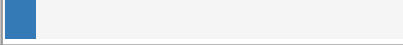
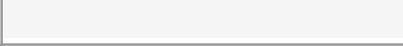

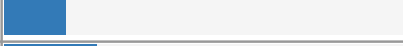
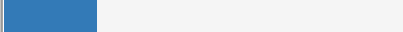
Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Operators are limited in their capacity to customise their DFLs due to the cost of the service, the long waiting times and/or their dependence on the disposition of the manufacturer

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		2	15.38 %
4		2	15.38 %
5		4	30.77 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2.1 - Usage of older versions of the ARINC 717 (or 543) standard with less capacity results in a smaller number of parameters recorded, and a degraded performance

		Answers	Ratio
1		3	23.08 %
2		1	7.69 %
3		1	7.69 %
4		2	15.38 %
5		3	23.08 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2.2 - Retrofitting of aircraft with newer versions of the ARINC 717 standard is not possible due to its high cost and/or lack of service from the manufacturer

		Answers	Ratio
1		2	15.38 %
2		1	7.69 %
3		0	0 %
4		5	38.46 %
5		2	15.38 %
No Answer		3	23.08 %

. : L3.1 - Manufacturers generally providing operators only with text-based documentation of their DFLs is a barrier to operator access to flight data, as they lack the expertise and must subcontract the production of a decoding file

		Answers	Ratio
1		3	23.08 %
2		2	15.38 %
3		0	0 %
4		3	23.08 %
5		2	15.38 %
No Answer		3	23.08 %

. : L3.2 - Production of a decoding file is a labour-intensive data entry process, which represents additional work and complexity to software vendors, without adding much value to their product offering

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		1	7.69 %
4		3	23.08 %
5		3	23.08 %
No Answer		3	23.08 %

. : L4 - Formal, direct channels of communication are missing between software vendors and manufacturers. The operator must act as an intermediary, delaying the production of the decoding file

		Answers	Ratio
1		2	15.38 %
2		1	7.69 %
3		0	0 %
4		4	30.77 %
5		3	23.08 %
No Answer		3	23.08 %

. : L5 - For a single aircraft fleet, an operator can have multiple DFLs. This results in higher costs for operators to acquire additional decoding files, and additional complexity for vendors when producing them

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		2	15.38 %
4		1	7.69 %
5		4	30.77 %
No Answer		3	23.08 %

. : L6 - Usage of proprietary formats for the decoding file, or not allowing its export in an open format, restricts an operator's access to their own data, as they cannot decode data by themselves nor share the file with other vendors

		Answers	Ratio
1		3	23.08 %
2		0	0 %
3		0	0 %
4		4	30.77 %
5		3	23.08 %
No Answer		3	23.08 %

. : L7 - The wide variety of aircraft types, and the fact that FDM is not mandatory for them, results in very few suppliers of recording equipment (QARs or equivalent) for FDM purposes

		Answers	Ratio
1		3	23.08 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		2	15.38 %
No Answer		5	38.46 %






. : L8 - Many aircraft are not equipped from factory with a QAR or equivalent equipment and associated cabling, with retrofitting being too expensive

		Answers	Ratio
1		4	30.77 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		1	7.69 %
No Answer		5	38.46 %





. : L9 - Manufacturers may be less experienced in FDM than others whose aircraft must be included into an FDM programme. This results in suboptimal DFLs for FDM purposes

		Answers	Ratio
1		3	23.08 %
2		0	0 %
3		1	7.69 %
4		1	7.69 %
5		3	23.08 %
No Answer		5	38.46 %






Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S1 - Regulatory requirement for manufacturers to provide operators with the possibility to customise and/or update their DFLs (via themselves or a third-party service) [Applicable to L1, L2.1, L2.2]

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		1	7.69 %
4		5	38.46 %
5		3	23.08 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S2 - Regulatory requirement for manufacturers to provide operators with a decoding file in an open format (such as FRED) together with the documentation [Applicable to L3.1, L3.2, L6]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	7.69 %
4		3	23.08 %
5		6	46.15 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S3 - Incentivise the creation of formal channels of communication between manufacturers and providers (e.g. repository of DFL-specific manufacturer contact addresses) [Applicable to L4]

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		2	15.38 %
4		2	15.38 %
5		4	30.77 %
No Answer		4	30.77 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S4 - Specific engagement from Authorities or industry bodies (e.g. EOFDM) with manufacturers of aircraft for which an FDM programme is not mandatory, focused on operator needs and industry best-practices [Applicable to L8, L9]

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		1	7.69 %
4		2	15.38 %
5		3	23.08 %
No Answer		4	30.77 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1.1 - Data processing capacity cannot be efficiently scaled, which does not allow big operators to exploit all the data they generate

		Answers	Ratio
1		2	15.38 %
2		1	7.69 %
3		1	7.69 %
4		0	0 %
5		2	15.38 %
No Answer		7	53.85 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1.2 - In-house server solutions are generally managed by the operator, which adds complexity to the FDM programme of small operators with few resources

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		1	7.69 %
4		1	7.69 %
5		2	15.38 %
No Answer		7	53.85 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Software vendors have many more difficulties updating and maintaining their software (need to integrate and coordinate with operator IT systems)

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		0	0 %
4		1	7.69 %
5		2	15.38 %
No Answer		7	53.85 %

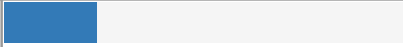
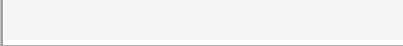
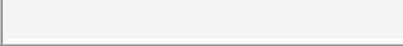
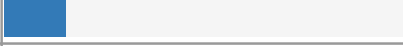


Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - As cloud solutions are adopted, legacy in-house solutions may be increasingly deprecated. If operators want to enjoy new capabilities, they will have difficulties remaining in-house

		Answers	Ratio
1		2	15.38 %
2		1	7.69 %
3		0	0 %
4		1	7.69 %
5		2	15.38 %
No Answer		7	53.85 %

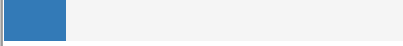
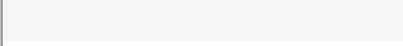
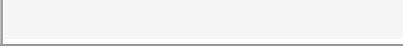
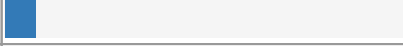


. : L4 - The usage of proprietary decoding file formats, proprietary event algorithms and proprietary programming languages can be a barrier to operators changing providers and moving from in-house to cloud solutions

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		0	0 %
4		2	15.38 %
5		2	15.38 %
No Answer		7	53.85 %

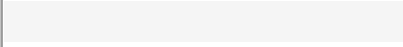
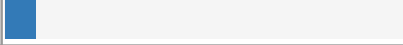
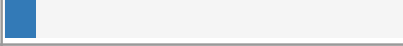



. : L5 - Operators may lose continuity in their FDM programmes, as the analysis of trends will be impacted if it cannot import previous results or cannot modify event definitions to what it had been using

		Answers	Ratio
1		3	23.08 %
2		0	0 %
3		0	0 %
4		2	15.38 %
5		1	7.69 %
No Answer		7	53.85 %





. : L6 - Software transitions of any type (in-house to cloud, vendor to other vendor) represent an important workload to operators in order to be trained, configure the system, and validate all software outcomes

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		0	0 %
4		1	7.69 %
5		3	23.08 %
No Answer		7	53.85 %






. : L7.1 - Some tasks required to work with flight data (such as production of a decoding file) have an ill-fitting with the SaaS model, given that they are expensive to perform, infrequent and cannot be automated

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		1	7.69 %
4		3	23.08 %
5		1	7.69 %
No Answer		7	53.85 %




. : L7.2 - Related with the above limitation, such tasks require vendors to either charge operators for additional fees, or absorb the cost

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	15.38 %
4		3	23.08 %
5		1	7.69 %
No Answer		7	53.85 %





. : L8 - There is a knowledge shift from operators to software vendors. Operators may lose analytical capacity, face more difficulties when changing providers, and lose all visibility over advanced and non-deterministic algorithms (AI)

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		1	7.69 %
4		3	23.08 %
5		1	7.69 %
No Answer		7	53.85 %





**Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S1 - (Equivalent to S2 from "the Data Frame Layout" topic) Regulatory requirement for manufacturers to provide operators with a decoding file in an open format (such as FRED) together with the documentation [Applicable to L4, L6, L7.1, L7.2]**

		Answers	Ratio
1		0	0 %
2		0	0 %
3		0	0 %
4		3	23.08 %
5		3	23.08 %
No Answer		7	53.85 %





Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S2 - Regulatory requirement for operators to maintain sufficiently detailed documentation on the events computed, the parameters and algorithms used, and the rationale behind them [Applicable to L4, L5, L8]

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		0	0 %
4		2	15.38 %
5		3	23.08 %
No Answer		7	53.85 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S3 - Specific engagement industry bodies (e.g. EOFDM, EAFDM) to ensure the knowledge shift to software vendors does not represent a capability loss for operators [Applicable to L8]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		3	23.08 %
No Answer		7	53.85 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S4 - Clarify the regulatory framework for the usage of non-deterministic algorithms in safety-related processes and the documentation available to the operator [Applicable to L8]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		3	23.08 %
No Answer		7	53.85 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Benchmarking of event trends and rates is hampered, requiring the operator to assume a degree of error or compute a second set of standardised events (e.g. large data exchange programmes)

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		1	7.69 %
4		1	7.69 %
5		6	46.15 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Knowledge sharing among operators is less efficient and effective, which can reduce the willingness to share as the benefit is smaller

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		2	15.38 %
4		2	15.38 %
5		4	30.77 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Software vendors may have to define multiple algorithms to capture the same event, as operators may use different definitions

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		2	15.38 %
4		1	7.69 %
5		5	38.46 %
No Answer		3	23.08 %

. : L4 - Operators and software vendors lack reference information on how to define events they have not evaluated before. Partially addressed by EOFDM/EAFDM publications, but limitation remains

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		0	0 %
4		4	30.77 %
5		3	23.08 %
No Answer		3	23.08 %

. : L5 - Given the difficulties, operators may take a more hands-off approach to event definition, using software vendor-defined logics. This can limit their understanding of the logics and become a liability if changing providers

		Answers	Ratio
1		3	23.08 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		4	30.77 %
No Answer		3	23.08 %







. : L6 - There are no widespread methodologies on how to monitor for risks that are yet to be identified or for which the operator has no visibility (the known unknowns and the unknown unknowns)

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		3	23.08 %
4		2	15.38 %
5		4	30.77 %
No Answer		3	23.08 %





. : L7 - Loss of knowledge and lack of understanding of the rationale behind a particular event definition and its implementation as time passes (due to rotation of key personnel, simply forgetting, etc.)

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		1	7.69 %
4		3	23.08 %
5		4	30.77 %
No Answer		3	23.08 %






. : L8 - Soft limit to the number of events that can be maintained, as increasing the number can become unmanageable for a small team of FDM analysts

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		2	15.38 %
4		3	23.08 %
5		2	15.38 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Publication and promotion of industry-agreed event definitions in the context of large data exchange programmes (e.g. FDX, Data4Safety) [Applicable to L1, L2, L3, L4, L5, L7, L8]

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		0	0 %
4		2	15.38 %
5		7	53.85 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S2 - Publication and promotion by industry bodies (e.g. EOFDM/EAFDM) of guidelines and industry best-practices on how to define events in general, as well as specific event definitions currently the focus of EASA's European Plan for Aviation Safety (EPAS) [Applicable to L4, L5, L7]

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		1	7.69 %
4		1	7.69 %
5		7	53.85 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S3 - (Equivalent to S2 from "Transitioning to the cloud" topic) Regulatory requirement for operators to maintain sufficiently detailed documentation on the events computed, the parameters and algorithms used, and the rationale behind them [Applicable to L7, L8]

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		0	0 %
4		5	38.46 %
5		4	30.77 %
No Answer		3	23.08 %





Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Many software solutions still incorporate limited fusion capabilities. Legacy software may not be able to fuse data, requiring in-house developments by the operator

		Answers	Ratio
1		0	0 %
2		0	0 %
3		2	15.38 %
4		4	30.77 %
5		3	23.08 %
No Answer		4	30.77 %






Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Access to data sources is not easy neither for software vendors nor operators. Some sources do not offer public access through APIs, charge fees or are limited in scope

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		2	15.38 %
4		2	15.38 %
5		4	30.77 %
No Answer		4	30.77 %




Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Data sources may not follow standardised formats, using instead proprietary or complex formats that require decoding or significant processing. This impact both the cost of fusing a data source, and the utility of doing it

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		0	0 %
4		3	23.08 %
5		5	38.46 %
No Answer		4	30.77 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Publication and promotion of technical documentation on guidelines and industry best-practices for fusion, supporting both operators and software vendors in adopting these capabilities [Applicable to L1, L3]

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		2	15.38 %
4		2	15.38 %
5		4	30.77 %
No Answer		4	30.77 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S2 - Specific engagement from industry bodies (e.g. EOFDM) or authorities to identify and review potential data sources (in line with "EOFDM - Breaking the Silos" document), and to produce both a repository of access points and recommendations to access such data [Applicable to L1, L2]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		4	30.77 %
4		0	0 %
5		5	38.46 %
No Answer		4	30.77 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Software vendors must adapt their offering to the access policy of each operator. While generally addressable, some conditions can be very limiting (e.g. storage of data in operator servers/in country of operator)

		Answers	Ratio
1		3	23.08 %
2		0	0 %
3		0	0 %
4		5	38.46 %
5		2	15.38 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Many current access policies are not developed for usage of flight data beyond FDM, as neither unions nor operators were prepared for the wave of digitalisation occurring

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	7.69 %
4		3	23.08 %
5		6	46.15 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Operators may be met with significant resistance from flight crews when trying to share flight data for usage outside the operator, such as in exchange programmes

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		0	0 %
4		1	7.69 %
5		8	61.54 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - Individualized reporting of events and/or flight data to flight crews is still a contentious topic. While some operators have fully adopted such solutions, flight crews have raised concerns regarding the potential misuse of data

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		0	0 %
4		1	7.69 %
5		8	61.54 %
No Answer		3	23.08 %







. : L5 - Standardised methods for data integration between FDM and SMS have not been established. Vendors can try to integrate with other vendors, but the market is so fragmented that the impact of such solutions is limited.

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		0	0 %
4		2	15.38 %
5		6	46.15 %
No Answer		3	23.08 %







. : L6 - Operators trying to integrate information into a BI solution tool separate from both SMS and FDM depend on both their software solutions allowing for timely extraction of data

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		3	23.08 %
4		0	0 %
5		5	38.46 %
No Answer		3	23.08 %







. : L7 - Some vendors offer both FDM and SMS software, which may present difficulties to operators using only one of the two software solutions and who may try to integrate it with a 3rd party solution

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		2	15.38 %
4		2	15.38 %
5		4	30.77 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - Specific engagement from authorities or industry bodies (e.g. EAFDM) with operators and crew representatives to identify and review recommendations for data access policies to incorporate new uses of flight data beyond FDM [Applicable to L2, L3]

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		0	0 %
4		4	30.77 %
5		5	38.46 %
No Answer		3	23.08 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S2 - Specific engagement from authorities or industry bodies (e.g. EOFDM) with software vendors and operators to further understand the technical challenges behind integration, current experience from operators, and a way forward [Applicable to L5, L6, L7]

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		2	15.38 %
4		2	15.38 %
5		5	38.46 %
No Answer		3	23.08 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L1 - Acquisition costs of wireless transmission equipment (WQAR, ground station, etc.) are high

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		2	15.38 %
4		2	15.38 %
5		3	23.08 %
No Answer		5	38.46 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L2 - Operators with mixed equipment (wireless and non-wireless) require multiple data pipelines and processes, increasing the overall cost if the whole fleet is not retrofitted

		Answers	Ratio
1		0	0 %
2		1	7.69 %
3		2	15.38 %
4		3	23.08 %
5		2	15.38 %
No Answer		5	38.46 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Wireless transmission may be too expensive or not reliable enough from particular airports, depending on the operator's network

		Answers	Ratio
1		0	0 %
2		4	30.77 %
3		0	0 %
4		2	15.38 %
5		2	15.38 %
No Answer		5	38.46 %

. : L4 - Delays in the reception of data by the operator, as it is retrieved every few days or weeks

		Answers	Ratio
1		0	0 %
2		2	15.38 %
3		1	7.69 %
4		1	7.69 %
5		4	30.77 %
No Answer		5	38.46 %

. : L5 - Risk of data loss if not transmitted in time, as on-board memory may be limited (particularly for older aircraft)

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		1	7.69 %
4		1	7.69 %
5		4	30.77 %
No Answer		5	38.46 %

. : L6 - Significant cost of retrieving data for operators with few bases or outsourced maintenance, as a certified technician is required

		Answers	Ratio
1		1	7.69 %
2		2	15.38 %
3		0	0 %
4		1	7.69 %
5		3	23.08 %
No Answer		6	46.15 %

. : L7 - Higher risk of issues resulting from human intervention: problems accessing the avionics bay, storage devices not properly inserted, faster wear and tear of storage devices, etc.

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		0	0 %
4		3	23.08 %
5		3	23.08 %
No Answer		5	38.46 %

**Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
: S1 - Regulatory requirement to have a minimum level of flight data availability (e.g. minimum percentage of flights retrieved, maximum time from flight operation to data reception) [Applicable to all limitations]**

		Answers	Ratio
1		2	15.38 %
2		1	7.69 %
3		1	7.69 %
4		0	0 %
5		4	30.77 %
No Answer		5	38.46 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate)
 : S2 - Regulatory requirement to equip wireless transmission technology on all aircraft with a newly issued CofA [Applicable to all limitations]

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		1	7.69 %
4		0	0 %
5		5	38.46 %
No Answer		5	38.46 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant)
 : L1 - Delays to the reception of flight data can have outsized impact on other uses of flight data, as these processes can be very time-sensitive

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		0	0 %
4		2	15.38 %
5		4	30.77 %
No Answer		5	38.46 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant)
 : L2 - The current system of independent decoding by multiple vendors is a cost, governance and efficacy concern for operators. Current solutions based on the ad-hoc collaboration of vendors requires a sometimes long and complex process to establish the necessary agreements and channels of communication and data transfer.

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		1	7.69 %
4		3	23.08 %
5		4	30.77 %
No Answer		4	30.77 %

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L3 - Issues arise when having to adapt DFLs to the needs of the different teams. As data needs increase, capacity constraints become more and more critical

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		1	7.69 %
4		3	23.08 %
5		3	23.08 %
No Answer		4	30.77 %

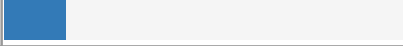
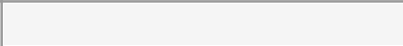

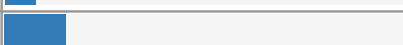
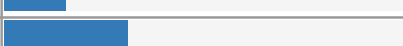
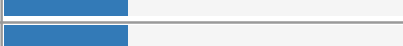
Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L4 - Operators without proper data governance procedures may have different definitions, logics or algorithms for the same concepts in multiple programmes, blocking interoperability, efficient information sharing and knowledge capitalization (e.g. different definitions of what represents a takeoff in fuel management and in FDM)

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		5	38.46 %
No Answer		4	30.77 %



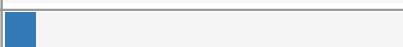
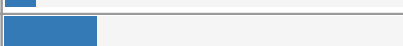
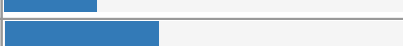

Please rate the following limitations based on their relevance to your organisation (1 - Not Relevant, 5 - Very Relevant) : L5 - Data access policies in many cases have not developed in parallel to the technical advancements. Such situations risk devolving into two extremes, with either crews not being properly protected, or operators being blocked from realizing these safety and operational benefits

		Answers	Ratio
1		1	7.69 %
2		0	0 %
3		1	7.69 %
4		1	7.69 %
5		6	46.15 %
No Answer		4	30.77 %




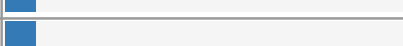

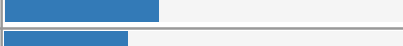
Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S1 - (Equivalent to S1 from "Data Availability" topic) Regulatory requirement to have a minimum level of flight data availability (e.g. minimum percentage of flights retrieved, maximum time from flight operation to data reception) [Applicable to L1]

		Answers	Ratio
1		2	15.38 %
2		0	0 %
3		1	7.69 %
4		2	15.38 %
5		4	30.77 %
No Answer		4	30.77 %







Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S2 - (Equivalent to S2 from "the Data Frame Layout" topic) Regulatory requirement for manufacturers to provide operators with a decoding file in an open format (such as FRED) together with the documentation [Applicable to L2]

		Answers	Ratio
1		0	0 %
2		0	0 %
3		1	7.69 %
4		3	23.08 %
5		5	38.46 %
No Answer		4	30.77 %







Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S3 - Publication and promotion by industry bodies (e.g. EOFDM) of guidelines and industry best-practices for data governance [Applicable to L3, L4]

		Answers	Ratio
1		0	0 %
2		2	15.38 %
3		1	7.69 %
4		1	7.69 %
5		5	38.46 %
No Answer		4	30.77 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S4 - Publication and promotion by industry bodies (e.g. EOFDM, EBT working groups, etc.) of logic and definition mappings accross domains (FDM takeoff and fuel takeoff, FDM event with EBT observable behaviour, etc.) [Applicable to L4]

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		0	0 %
4		3	23.08 %
5		4	30.77 %
No Answer		4	30.77 %

Please rate the following potential solutions based on their adequacy (1- Inadequate, 5 - Very Adequate) : S5 - (Equivalent to S1 from "Data Governance" topic) Specific engagement from authorities or industry bodies (e.g. EAFDM) with operators and crew representatives to identify and review recommendations for data access policies to incorporate new uses of flight data beyond FDM [Applicable to L5]

		Answers	Ratio
1		1	7.69 %
2		1	7.69 %
3		0	0 %
4		3	23.08 %
5		3	23.08 %
No Answer		5	38.46 %