



Network Manager
nominated by
the European Commission



ASMT v5

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ES2 WS01-15 – INTER FAB SAFETY WORKSHOP

“Safety Tools to Support SMS – Implementation at regional level

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ASMT 4 – Current deployed version



The screenshot displays the ASMT 4 web interface, which is used for monitoring and managing safety-critical incidents. It is divided into several main sections:

- LIVE INVENTORY Table:** A table listing various aircraft incidents. The columns include Type, Aircraft, Sector, Date, Quality, Relevance, Risk, and Min FL. The table shows a mix of 'Low', 'High', and 'Medium' quality incidents, with relevance levels ranging from 'Relevant' to 'Nuisance'.
- STCA OCCURRENCE 3637 Map:** A map showing a specific STCA (Short-Term Conflict Alert) occurrence. It displays flight paths for aircraft like AFR267 and FIN875P, along with flight levels and sector boundaries.
- SMI Correlation Plot:** A scatter plot titled 'SMI correlation between risk of collision and flight band'. The x-axis represents the 'Risk of collision' (0 to 12) and the y-axis represents the 'Flight level' (0 to 400). The plot shows a clear trend where higher flight levels correspond to lower risk of collision.
- Heatmaps:** A map of Europe showing a heatmap of STCA occurrences. The color scale ranges from blue (low density) to red (high density), indicating areas with a higher frequency of safety-critical incidents.

From ASMT 4 to ASMT 5



Released version end of 2017

Deployment and operational validation

Stable Version 5

Beta version



Why a new version is needed?

- **Improve suitability and usability**
- **Collect more types of safety events**
- **Integration with other SAF Tools and other information**

Which are the sources of input?

- **Feedback from users**
- **Current and forthcoming European regulation**
- **Internal review at EUROCONTROL level**
- **Vision: looking forward to make ASMT a**

**SAFETY DATA INTELLIGENCE TOOL
FOR THE BENEFIT OF OPERATIONS**

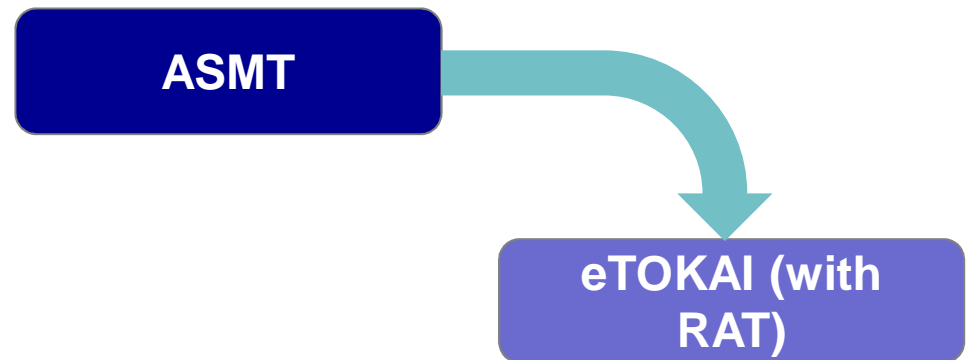
Improve suitability and usability

- **Suitability > Usefulness of the tool**
 - Normalisation of events (e.g. by traffic load)
 - Customise the relevance categorization
 - Semi-automated production of documents with different statistical analyses and level of details
- **Usability > Ease of use**
 - **Speak the language of the user** (proper ATM terminology!)
 - **Improve the intuitiveness** of the user interface
 - Place inside the software **more contextual help** and **videos**
 - **Support better the filtering of air traffic** (e.g. VFR vs. VFR, military vs. military etc.)

Collect more types of safety events

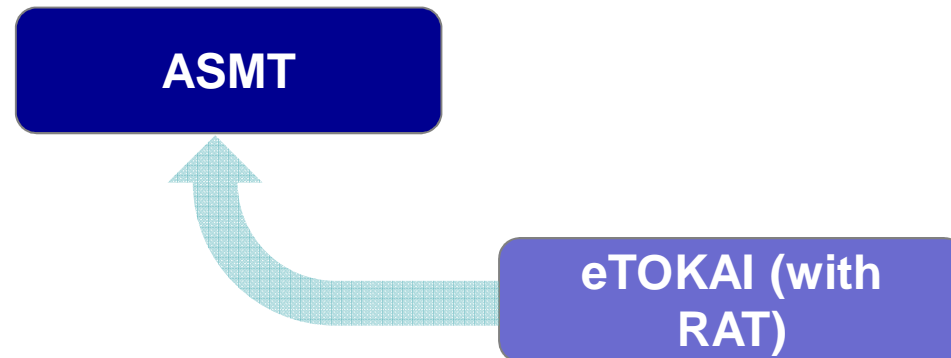
- Runway Incursions
 - MSAW (from the ground-based SNET)
 - Go-around
 - Final approach overshoots (e.g. parallel runways)
 - ...?
-
- **Rationale:**
 - Meet regulation
 - Meet users' needs

Integration with other SAF Tools: ASMT>eTOKAI



- **Risk of Collision**
- **TCAS triggering**
- **Ground safety nets triggering**
- General information (Date, Time, LAT&LONG, safety nets triggered...)
- Aircraft information (callsign, type of traffic, flight rules, departure, destination...)
- Altitude / FL (actual, cleared, vertical profile...)
- Airspace type and sector
- Information related to conflicting pair of a/c in case of SMI (rate of closure, horizontal and vertical geometry of encounter, minimum separation achieved...)

Integration with other SAF Tools: eTOKAI>ASMT



- Expert human judgement (i.e. analysis done by safety officers looking at the events)
 - Explanatory factors
 - Human judgement
- Other sources of information used during the analysis (e.g. data on weather conditions, report on equipment status etc.)



Integration with other sources of data

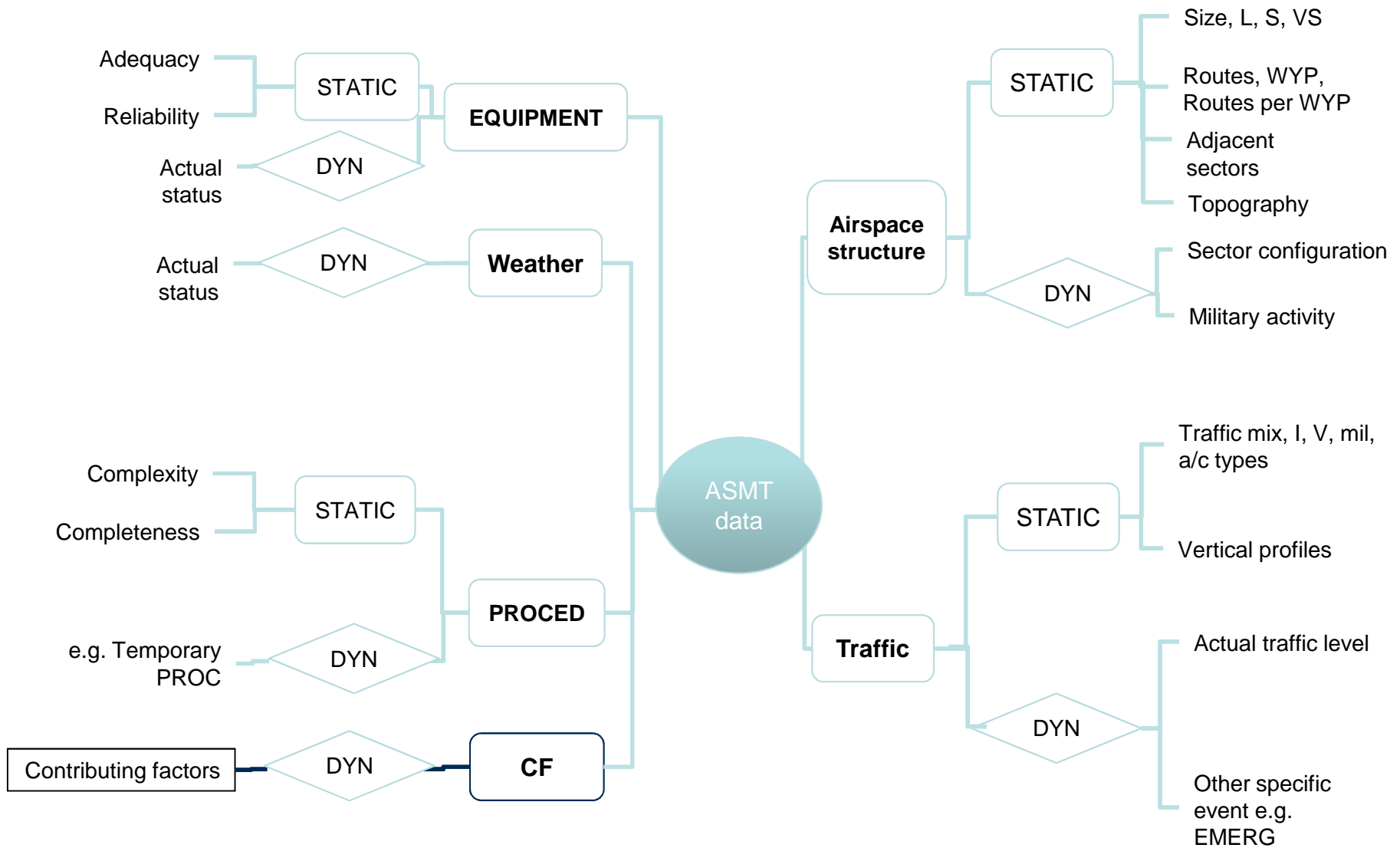
- **Network metrics**

- Type of sector
- Dimensions
- Complexity of waypoints (e.g. number of airways crossing)
- ...

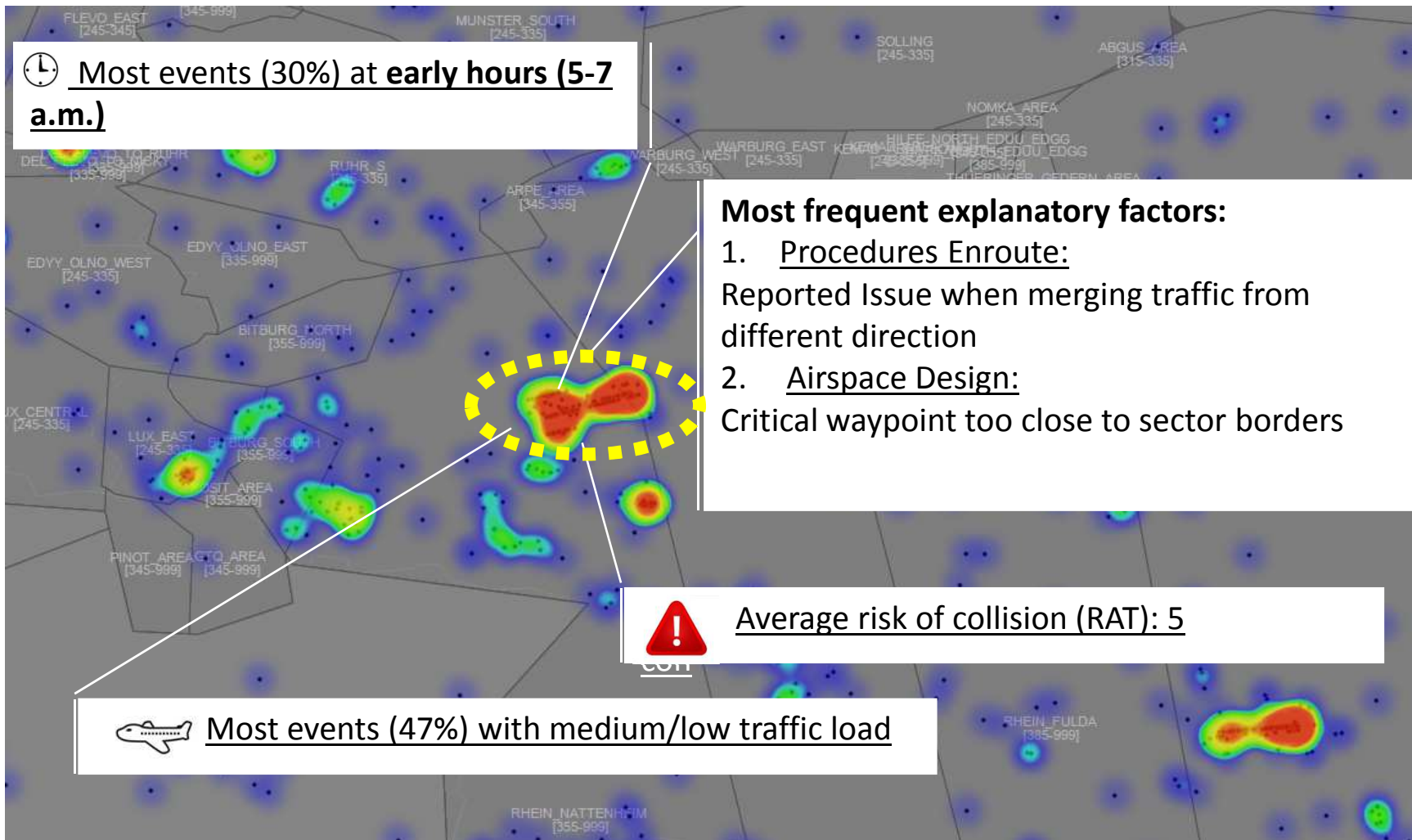
- **Traffic metrics**

- Traffic load
- Complexity with regard to vertical movements
- Delays
- ...

Possible mindmap



Envisioning future analysis with ASMT



Discussion



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