

FRA implementation- Key Performance Indicators.

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Key performance indicators

ICAO Annex 11:

Any significant safety-related change to the ATS system, including, **the responsible authority shall ensure that adequate provision is made for post-implementation monitoring to verify that the defined level of safety continues to be met.**

Doc 9859 - Safety Management Manual

Safety assurance.

3.1 Safety performance monitoring and measurement

Definition of an Indicator .

- “An indicator is a measurable representation of an aspect of reality” (Øien et al., 2011a);
- “An indicator can be considered any measure – quantitative or qualitative – that seeks to produce information on an issue of interest” (Reiman and Pietikäinen, 2012);
- “Performance indicators are task-specific metrics intended to measure the quality of a work process, product or service” (Harvey et al., 2015).

Why indicators exit?

1. Monitor.
2. Identify and investigate potential issues
3. Take action to mitigate these issues

Indicator attributes*

- Simple to be understood;
- Easily measurable;
- The relation to the area (safety in this case) should be unquestionable;
- Show change over time.

*According to The International Atomic Energy Agency (IAEA)



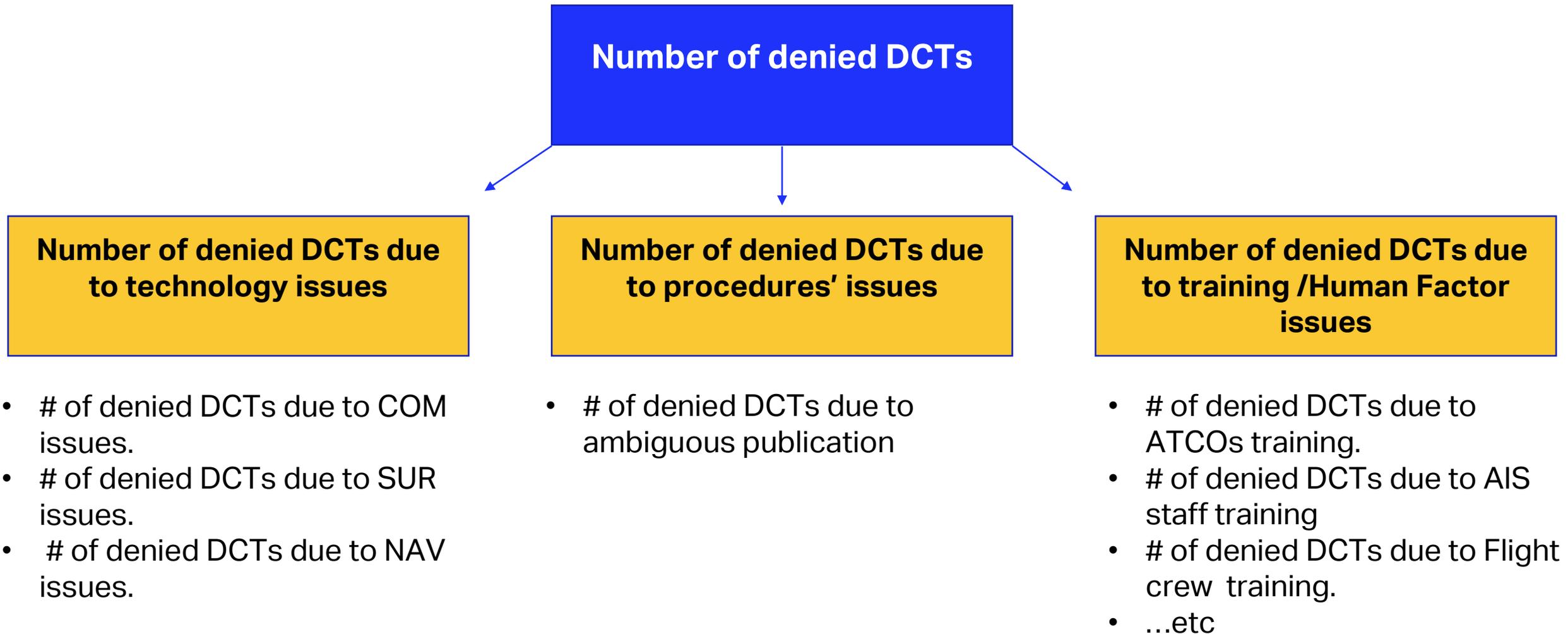
Indicators' type

- **Lagging indicators:** reactive, direct or outcome indicators
- **Leading indicators:** predictive, proactive, indirect, monitoring or activity indicators

FRA Indictors definition

Number of denied DCTs: the number of occurrences that flight crew have been **tactically** denied to execute a DCT between 2 significant points , filled in the FPL, within a free route airspace.

FRA Indictors definition*



*The recommended time frame is 1 month and threshold of 0 to be set by the ANSP/State

FRA Indicators data collection & corrective action plan development

ANSP	Airlines	AFI FRA PMT
<ul style="list-style-type: none">• Define a set of KPIs.• Collect data on occurrences .• Investigate occurrences & analyze KPIs• Develop national corrective action plans• Share KPIs data and Investigation reports with AFI FRA PMT	<ul style="list-style-type: none">• Share occurrence with ANSPs/States and IATA.	<ul style="list-style-type: none">• Collect data from ANSPs and International /regional organizations.• Identify regional safety trends.• Develop regional corrective action plan• Review AFI FRA roadmap