

Panel: Challenges in Establishing non-Punitive Safety Information Programs

Asia-Pacific (APAC) Region Safety Information Sharing: A Case Study

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ALPA Conference
International Progress Toward a Just Culture
Proactive Use of data
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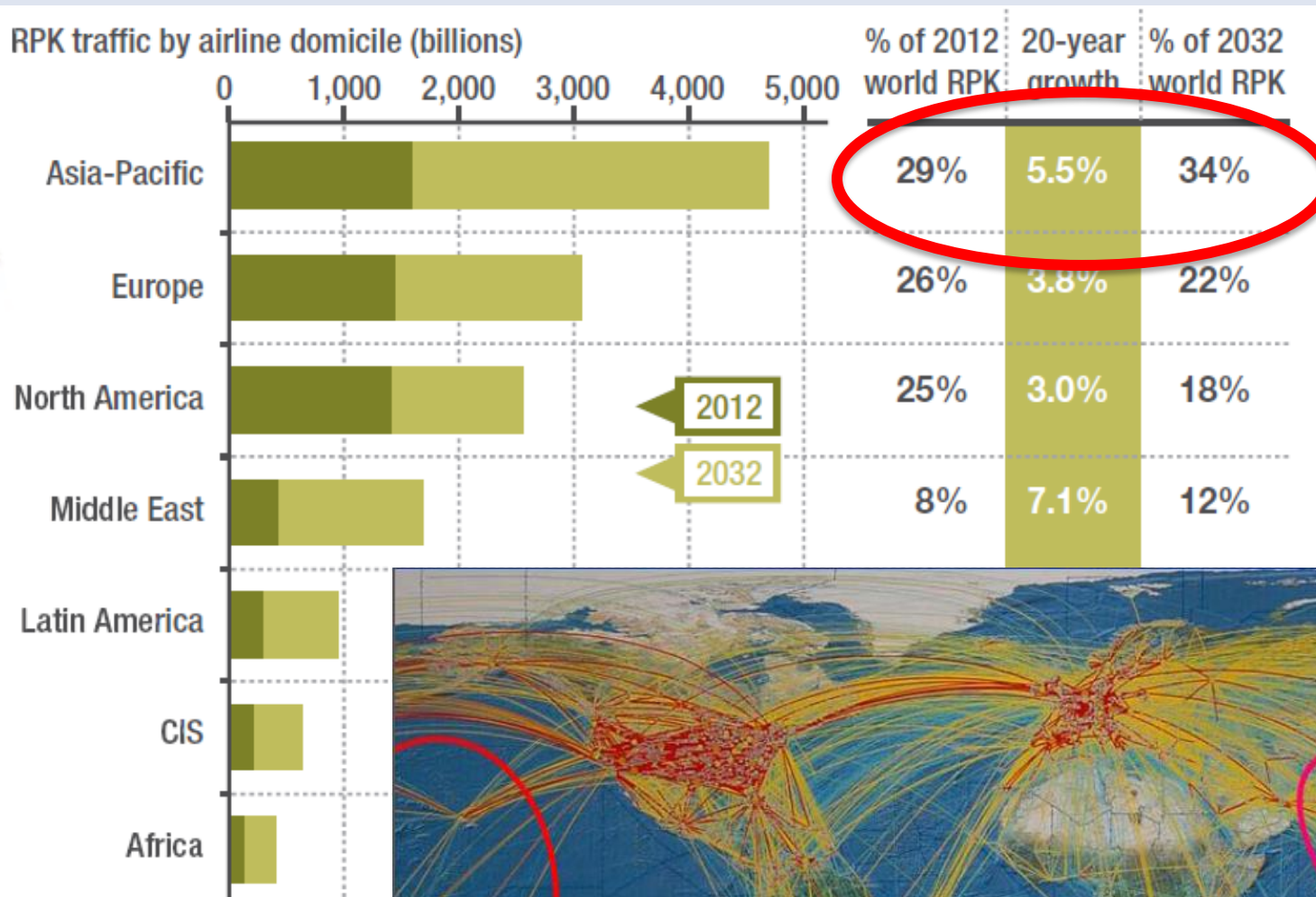
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Promoting Aviation Safety Data Sharing Globally

Asia Pacific to Lead in world traffic by 2032



Source: Airbus Global Market
Forecast
Future Journeys 2013 2032

APAC Fatal Accidents Have Been Declining



Per Million Operations
Source: IATA

Is the Time Right?

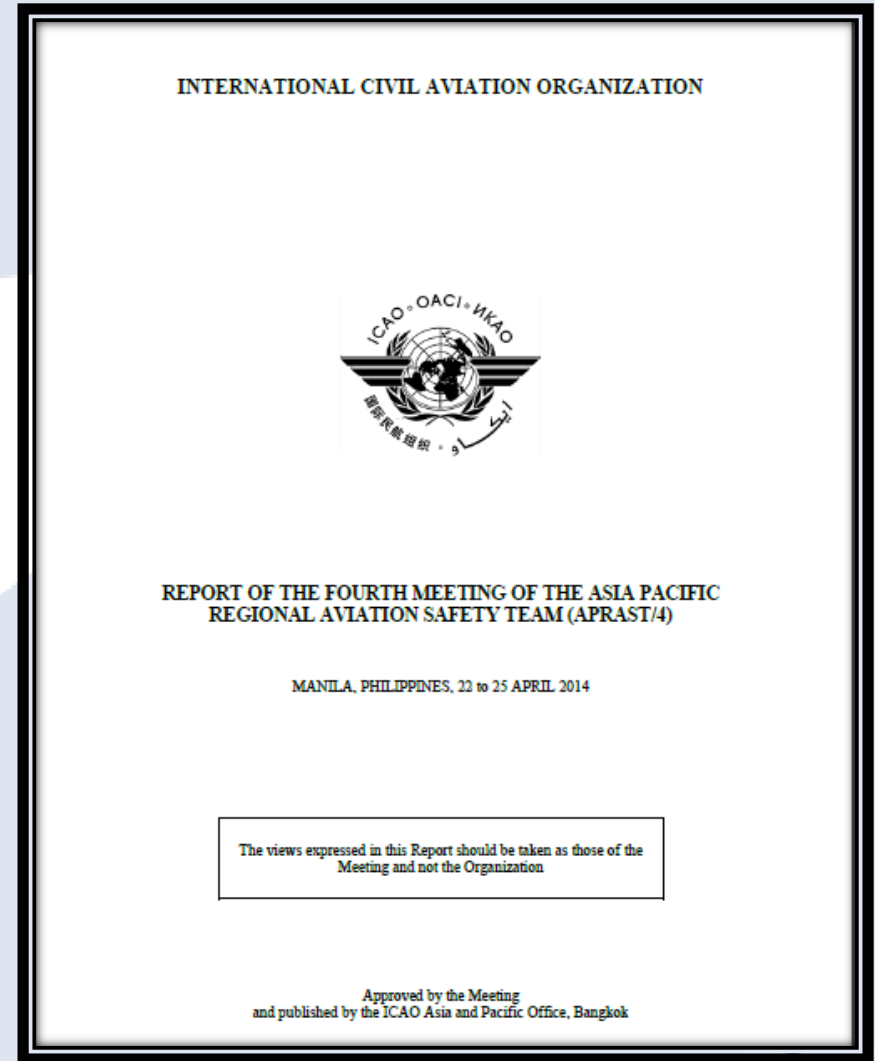
- APAC is in the midst of the *safest period* in regional history
- Major *causes of accidents* have been identified through forensic analysis
- Is there *now* opportunity:
 - for broad *sharing* and *mining* of safety data?
 - for moving from *reactive to proactive*?
 - *for identifying precursors to accidents & incidents*?
 - *for reducing risk and spotting issues before becoming a problem*?



APAC Feasibility Study on a Regional Safety Data Sharing

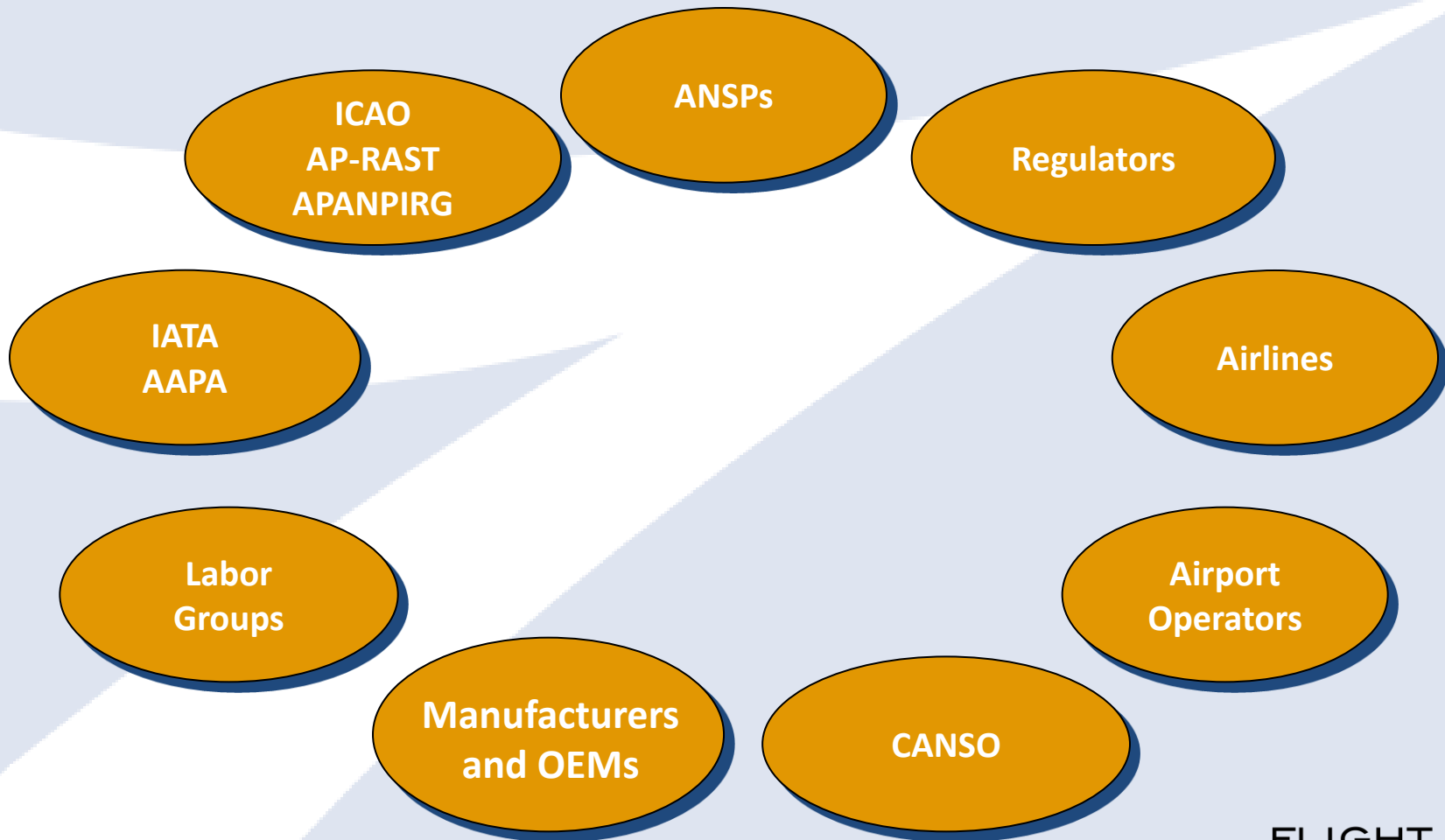
- “That, APRAST support *FSF and MITRE* to *conduct a study* on the *feasibility* of a regional safety information collection, analysis and sharing system for the APAC region”.
- “That, States/Administrations, air navigation service providers, airlines and international organisations be *encouraged to participate in such a study*, including providing *inputs to FSF/ MITRE*”.

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Asia Pacific Safety Data Sharing Collaboration: Diverse Stakeholder Community



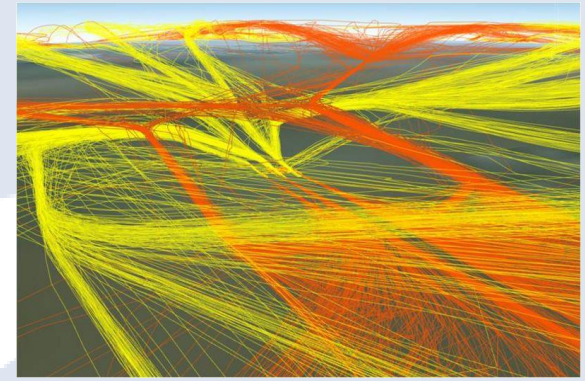
Diverse Datasets in APAC Regional Data Sharing



Airline Safety Reports



FDM Data



Radar and ADS-B



**ANSP & State
Safety Reports**



Weather



Infrastructure

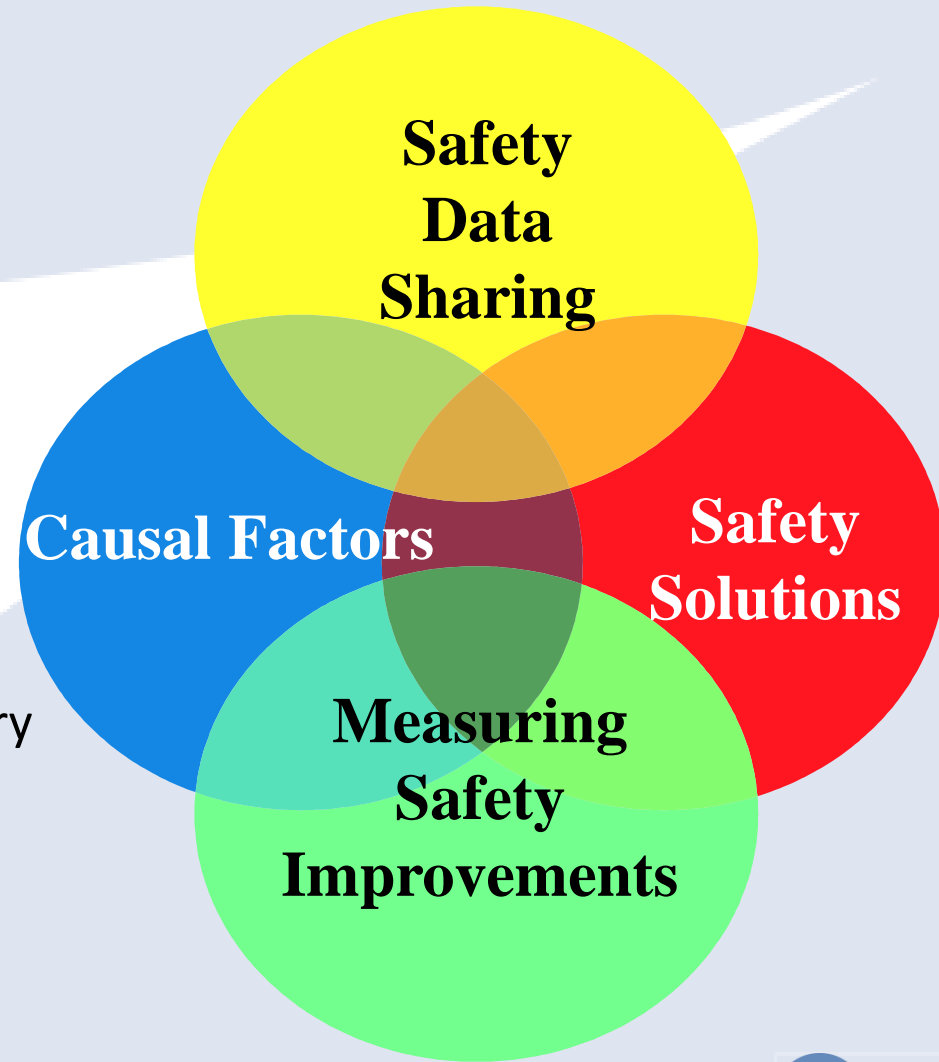
Just Culture in APAC Context



- Long-standing and **diverse legal** and societal structures
- Intra-regional variation in **cultures** and customs
- Deep-rooted **attitude & belief systems** relating to individual and societal responsibilities

Safety Data Sharing Framework

- **Sharing Safety Data**
 - Voluntary and non-punitive
- **Determining risks and causal factors**
 - Data driven and analytical
- **Implementing Safety Solutions**
 - Through collaborative and voluntary adoption of solutions and best practices
- **Measuring safety improvements**



APAC Airlines: *Why Should I Participate in Safety Information Sharing?*

Which data do I need to provide? (e.g. voluntary safety reports, FDM)

How is the data de-identified?

Where is the data archived?

Do I have control?

What CAA & ANSP data I have access to?

How do we get agreements on risks?

How to prioritize risks?

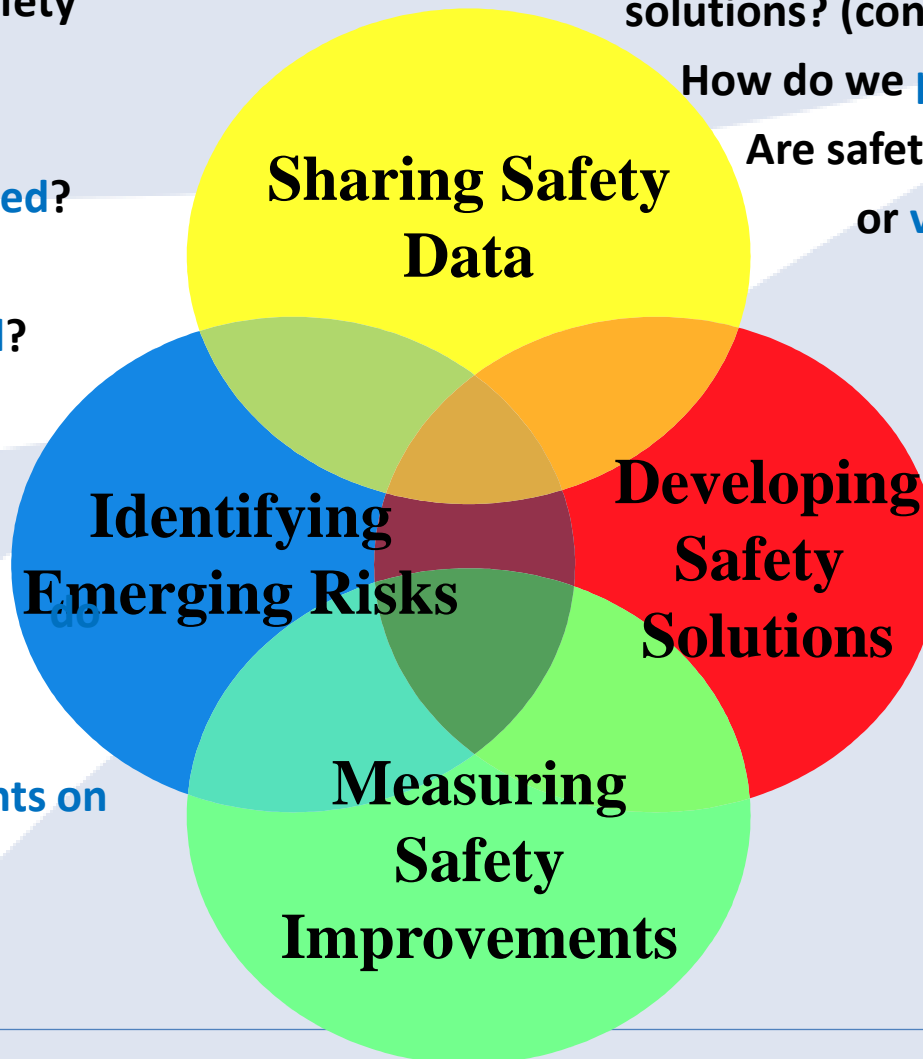
How do we make decisions on safety solutions? (consensus, majority vote)

How do we prioritize solutions?

Are safety solutions mandatory or voluntary?

How do we track commitments?

How do we measure efficacy of solutions?



APAC Civil Aviation Authorities: *Why Should I Participate in Safety Information Sharing?*

What airline data **do I have access to?**
(e.g., mandatory, voluntary)

Can I use the data **for oversight purposes?**

Which data do I need to provide?

Where is the data **archived?**

Do I have **control?**

How do we get **agreements on risks?**
How to **prioritize** risks?

How do we get **agreements** on safety solutions?

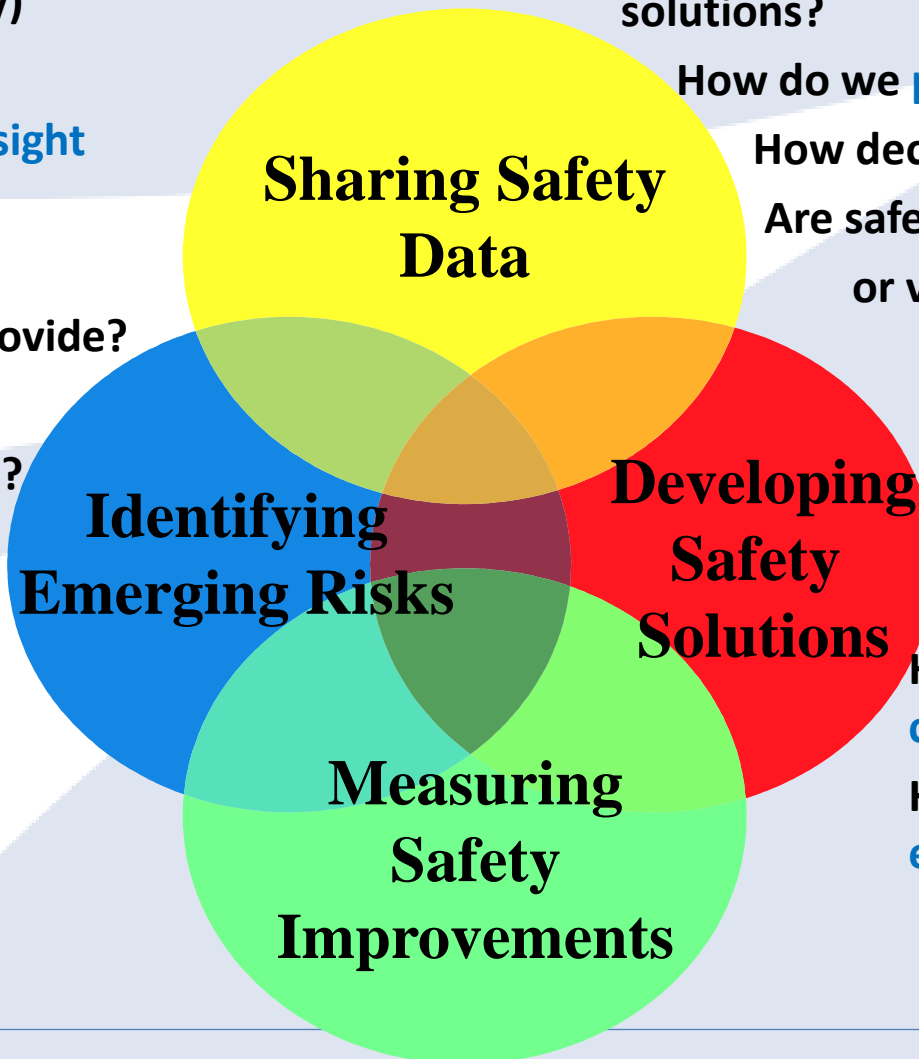
How do we **prioritize** solutions?

How decisions are made?

Are safety solutions mandatory or voluntary?

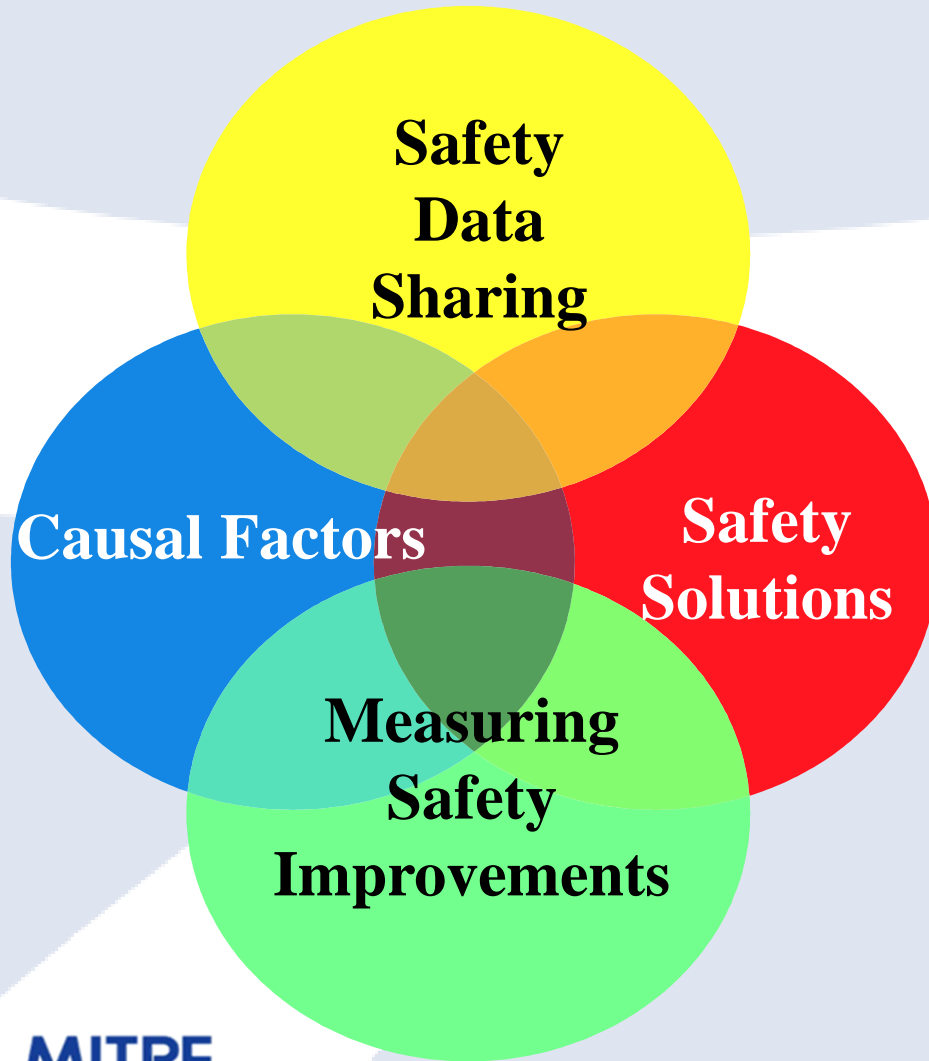
How do we **track commitments?**

How do we **measure efficacy** of solutions?

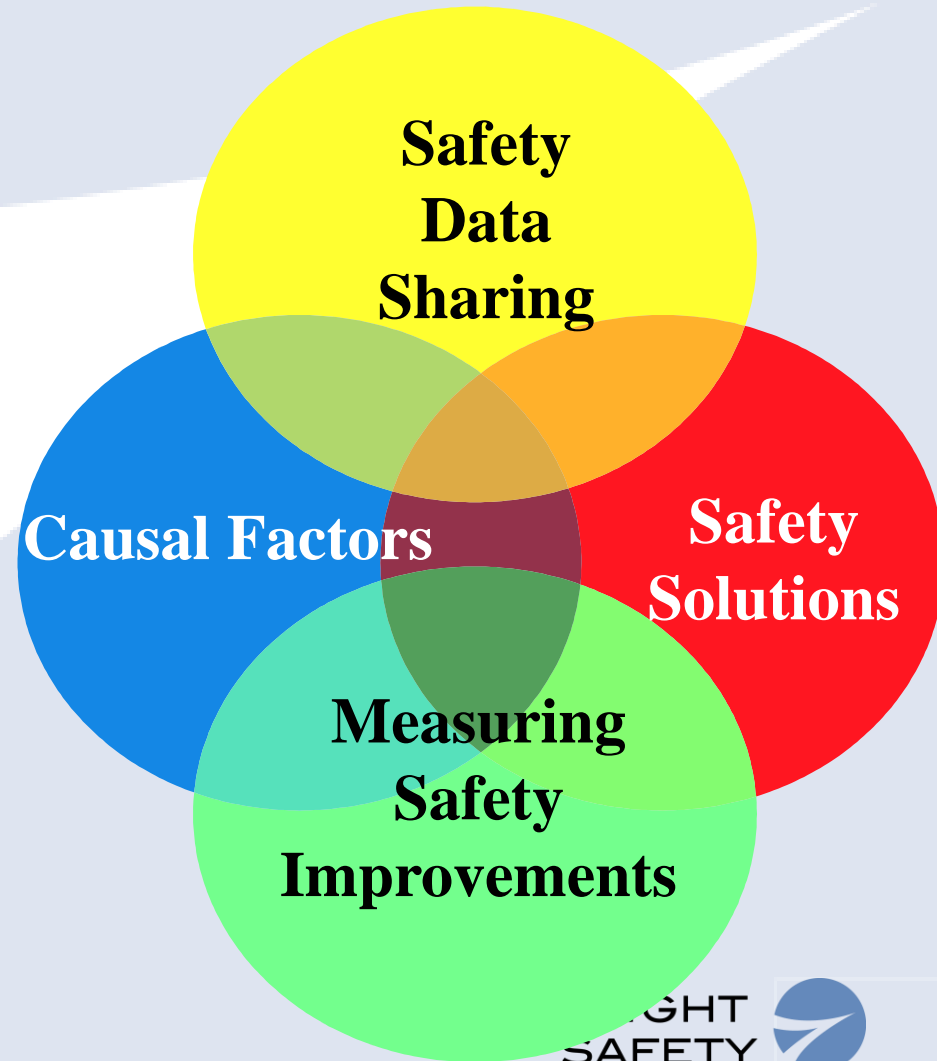


Opportunity for Collaboration?

APAC Civil Aviation Authorities



APAC Airlines



Scope of FSF-MITRE Feasibility Study (1)

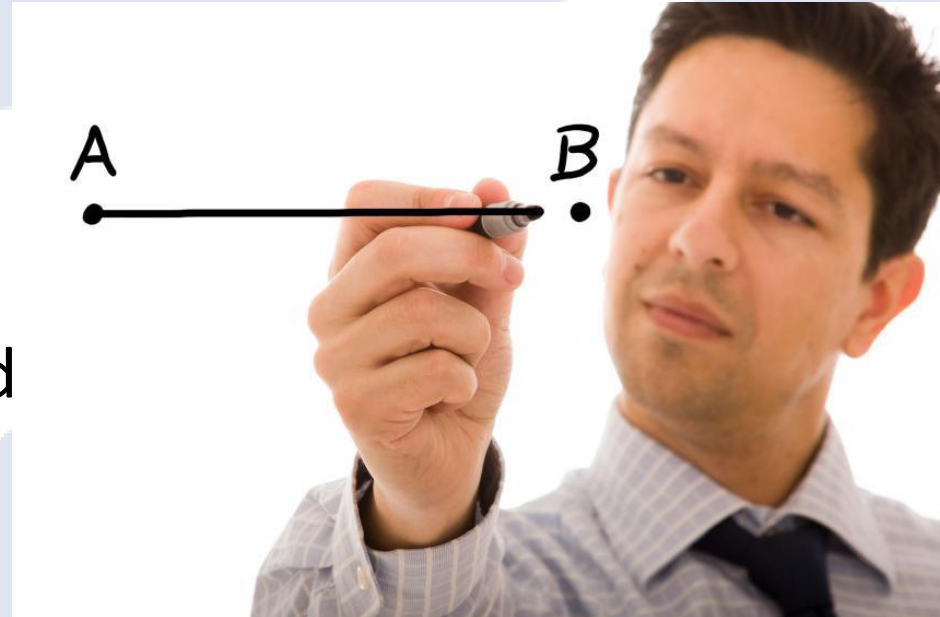
- What is the **overarching Philosophy**?
 - Systemic safety, individual or community accountability?
- What are important **issues relating to Data**?
 - De-identification and legal protection
 - Limitations in use of data (e.g. how long data can be kept?)
 - Processing and archiving (decentralized vs. centralized)
 - Aggregation and reporting (by airport, airspace, route, aircraft type,...)
 - Access to results (who should have access, at what level?)

Scope of FSF-MITRE Feasibility Study (2)

- What are **Decision-making** and **Collaboration** processes?
 - Acting on data-driven precursors
 - Consensus, majority rule, hybrid?
 - Governance body? (small or large)
 - Stakeholder representation
 - Secretariat and Management Function
- How should Asia Pacific initiative be funded?
 - Cost elements: infrastructure, computing and processing
 - Cost factors: size of data set, number of metrics, depth of analysis
- What is the benefit of a regional **Demonstration Project**?

Next Steps

- MITRE/Flight Safety engagements in the APAC Region **Dec 2013 - Sept 2014**
- Study **report out** to APAC in **Sept 2014**, Bangkok, Thailand
- On-going Regional consultations & deliberations



Thank You!



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