

Industry Day

LATAM Airlines Group - Brasil

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INTEGRATED SAFETY AND SECURITY ASSURANCE

Daniel Ramalho Guillaumon

Safety Assurance Manager

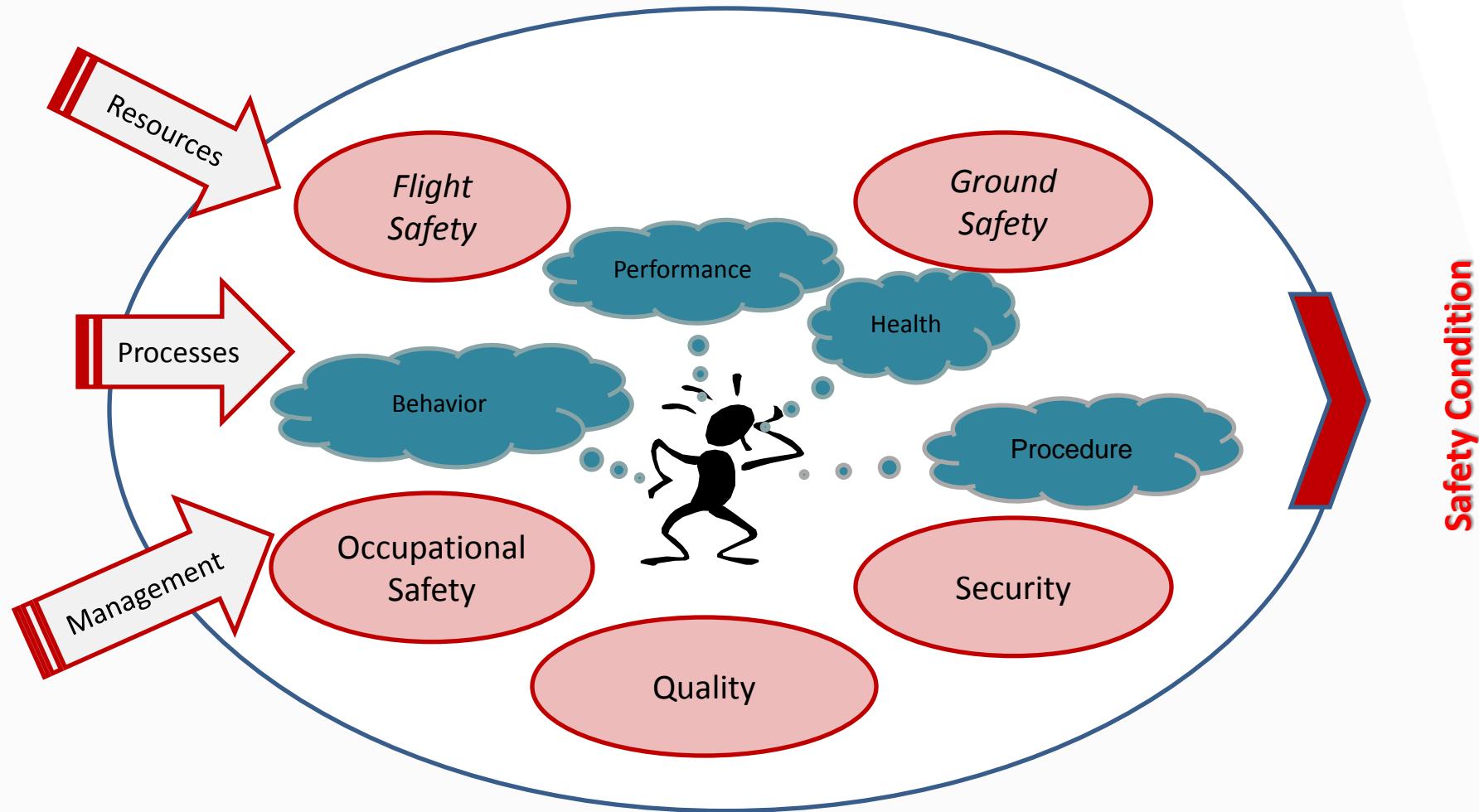


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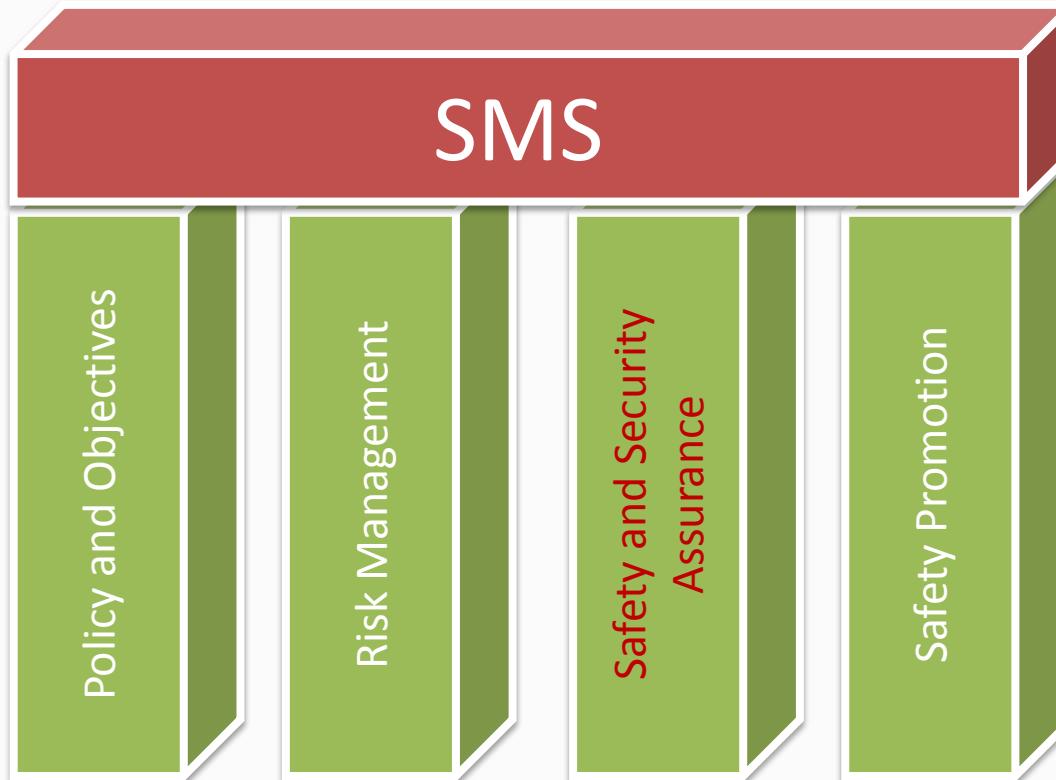
Agenda

- IMS
- Hazard Identification Processes
- Risk Management
- Safety Assurance Processes
- Difficulties

Integrated Management System



SMS Pillars



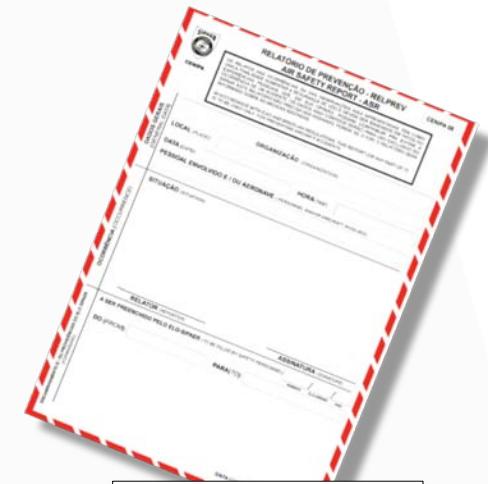
IMS Structure



Hazard Identification Processes

Internal Source

- ASR;
- FDM – Flight Data Monitor;
- Investigation;
- LOSA;
- Audits, Inspections and Surveillance.



External Source

- Accident Reports;
- Industry ;
- External Audits.

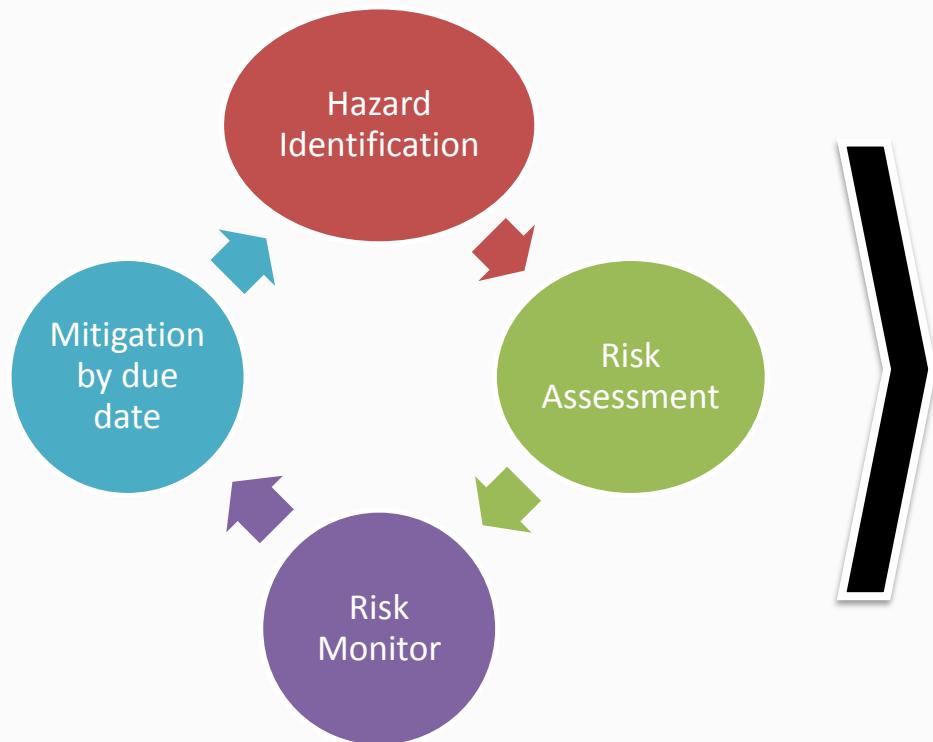
Investigation Report

Risk Management



Integrated Safety and Security Assurance

Risk Management



Accountable in charge



What event can be measure?

Flight Operations

EGPWS
Warning

*Runway
Excursion*

Emergency

**Unlawful
Interference**

low fuel

**RTO above
100 kts**

**High Rate of descent
above 2000 fts**

**TCAS RA or
TA Warning**

*Scape Slide
deployment*

**unestablished
approach**

What event can be measure?

Ground Operations

Dangerous Goods
acceptance errors

Vehicle collision

Ground
Damage

*pre-flight
interferences*

Unlawful Event

Return of flight by
technical problem

Aircraft loading error

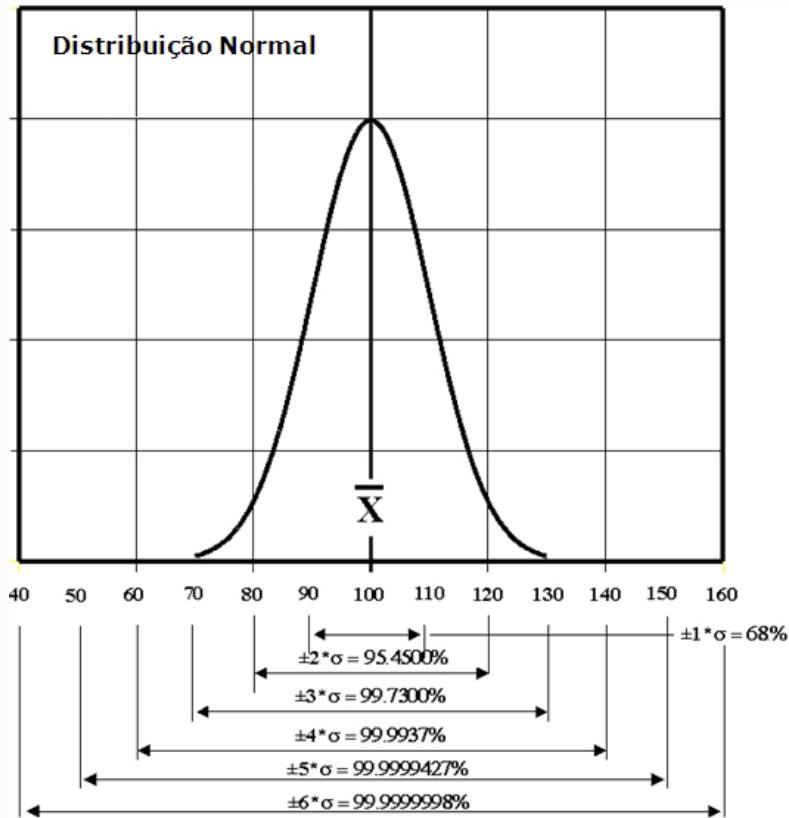
Dangerous
Goods leaks

Dispatches errors

*FOD at
ramp area*

What can be measure?

Six Sigma – Failure Index



Variability Index	Performance
$\geq 6\sigma$	100%
$\geq 5\sigma$ e $< 6\sigma$	99,99994%
$\geq 4\sigma$ e $< 5\sigma$	99,9937%
$\geq 3\sigma$ e $< 4\sigma$	99,73%
$\geq 2\sigma$ e $< 3\sigma$	99,45%
$\geq 1\sigma$ e $< 2\sigma$	68%
$< 1\sigma$	0%

What can be measure?

$$Performance = \frac{MADE}{TARGET}$$

Management

Lower Level

- 50% - Station work Performance Average base on Six Sigma;
- 20% - ASR investigation commitment;
- 30% - Comply with all recommendations and correctives action.

Upper level

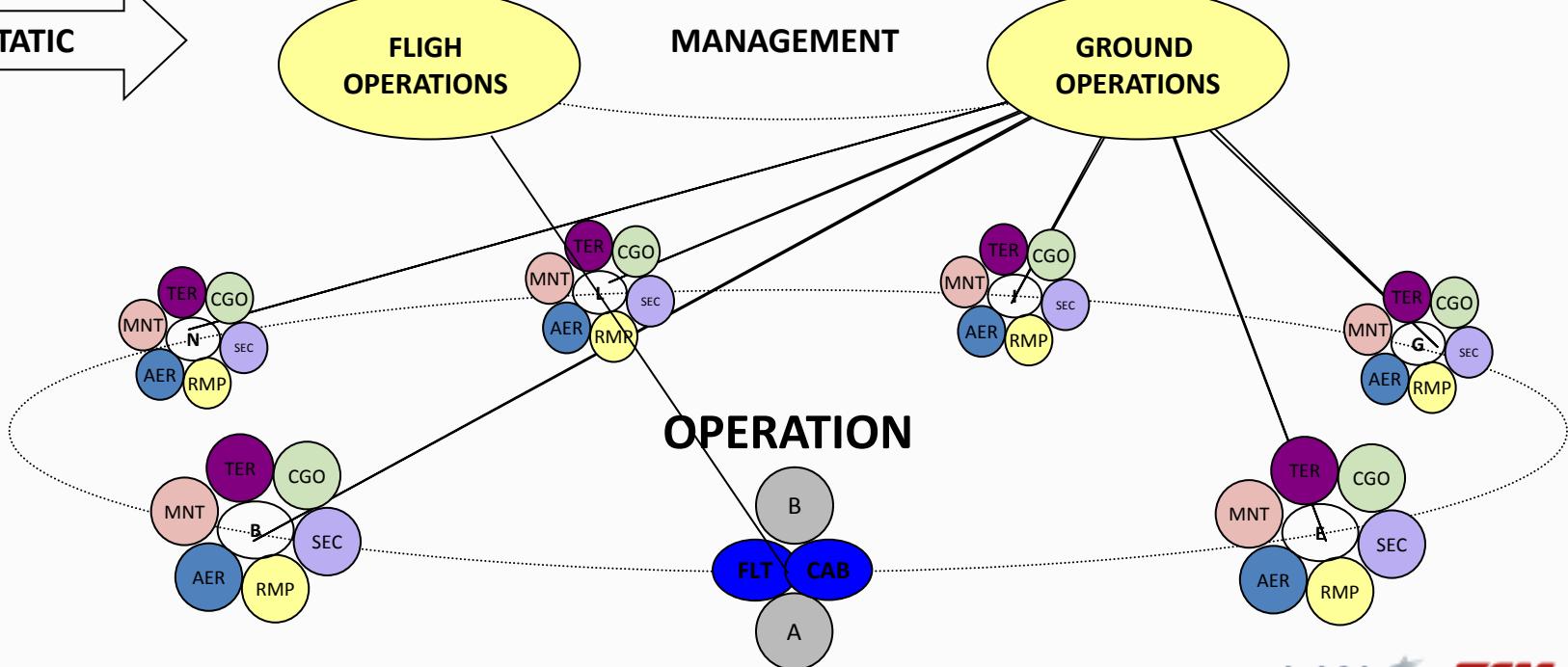
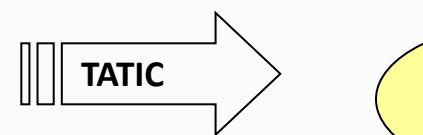
- 50% - Lower Level Performance Average;
- 50% - Comply with all recommendations and correctives action.

What can be measure?

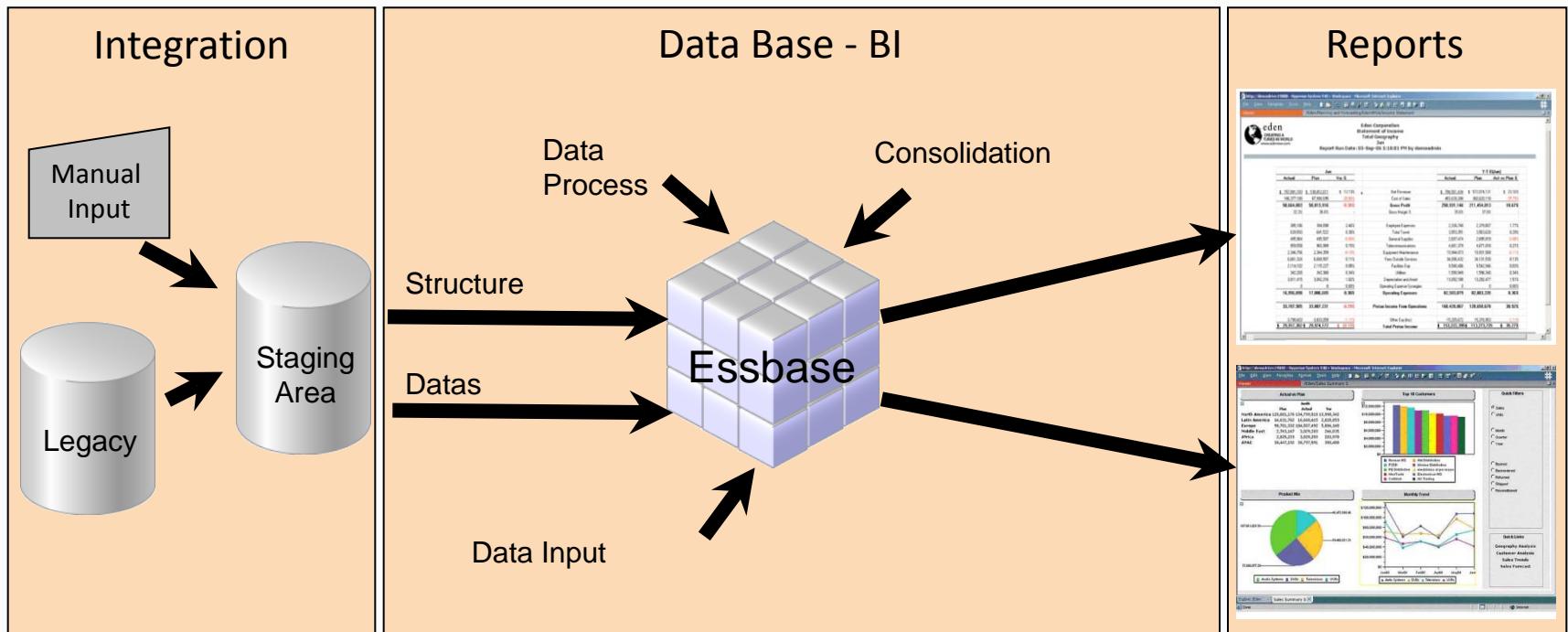
Corporate

Example of Score	SPI
10 %	ASR Culture
20 %	Labor Accident Index
10 %	Serious Incident
10 %	Incident
25 %	Management Performance
25 %	Safety and Security Operational Performance

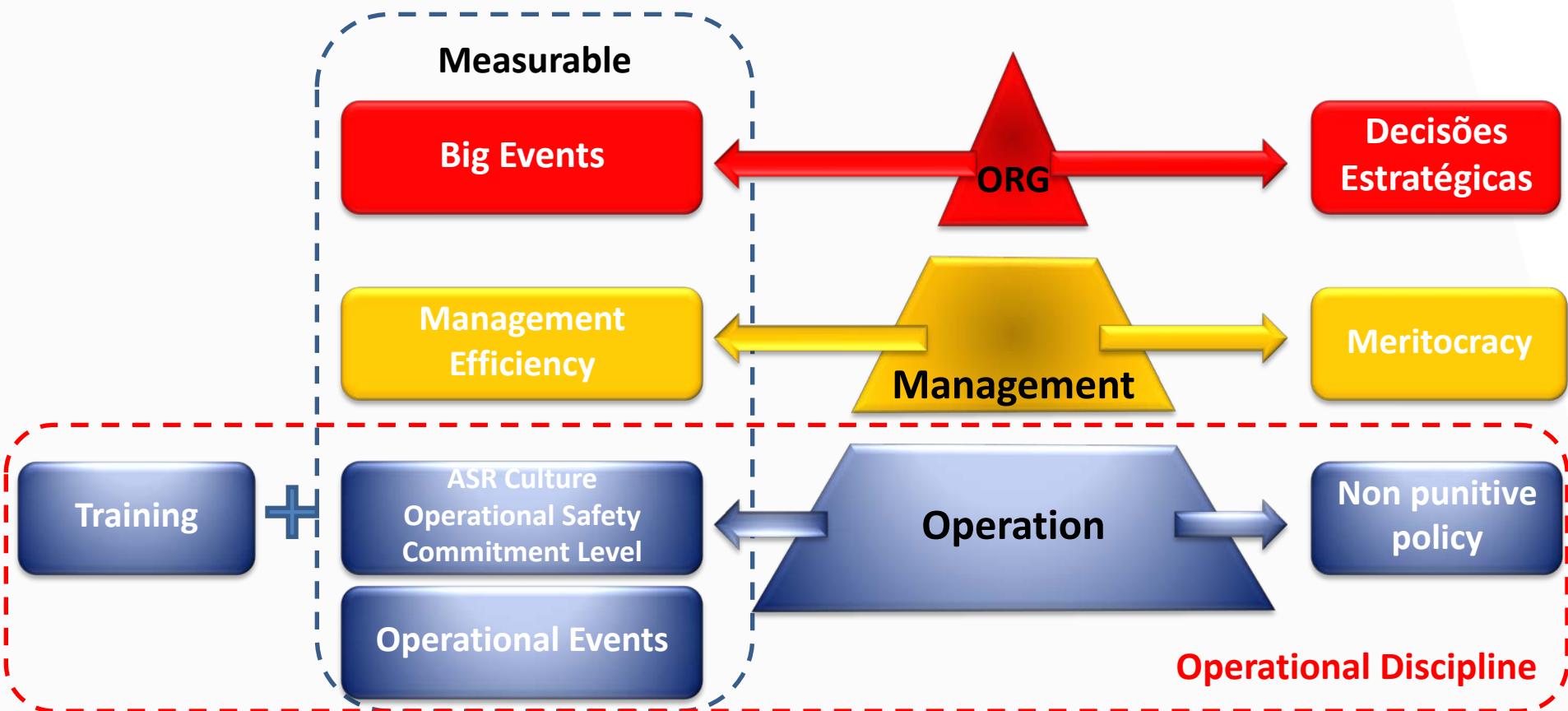
Operational Structure



Data base integration



Conclusion



Thank you

Any questions?

Daniel Ramalho Guillaumon
Safety Assurance Manager
daniel.guillaumon@tam.com.br