

Industry Day

LATAM Airlines Group - Brasil

25/ 2014

INTEGRADED SAFETY AND SECURITY ASSURANCE

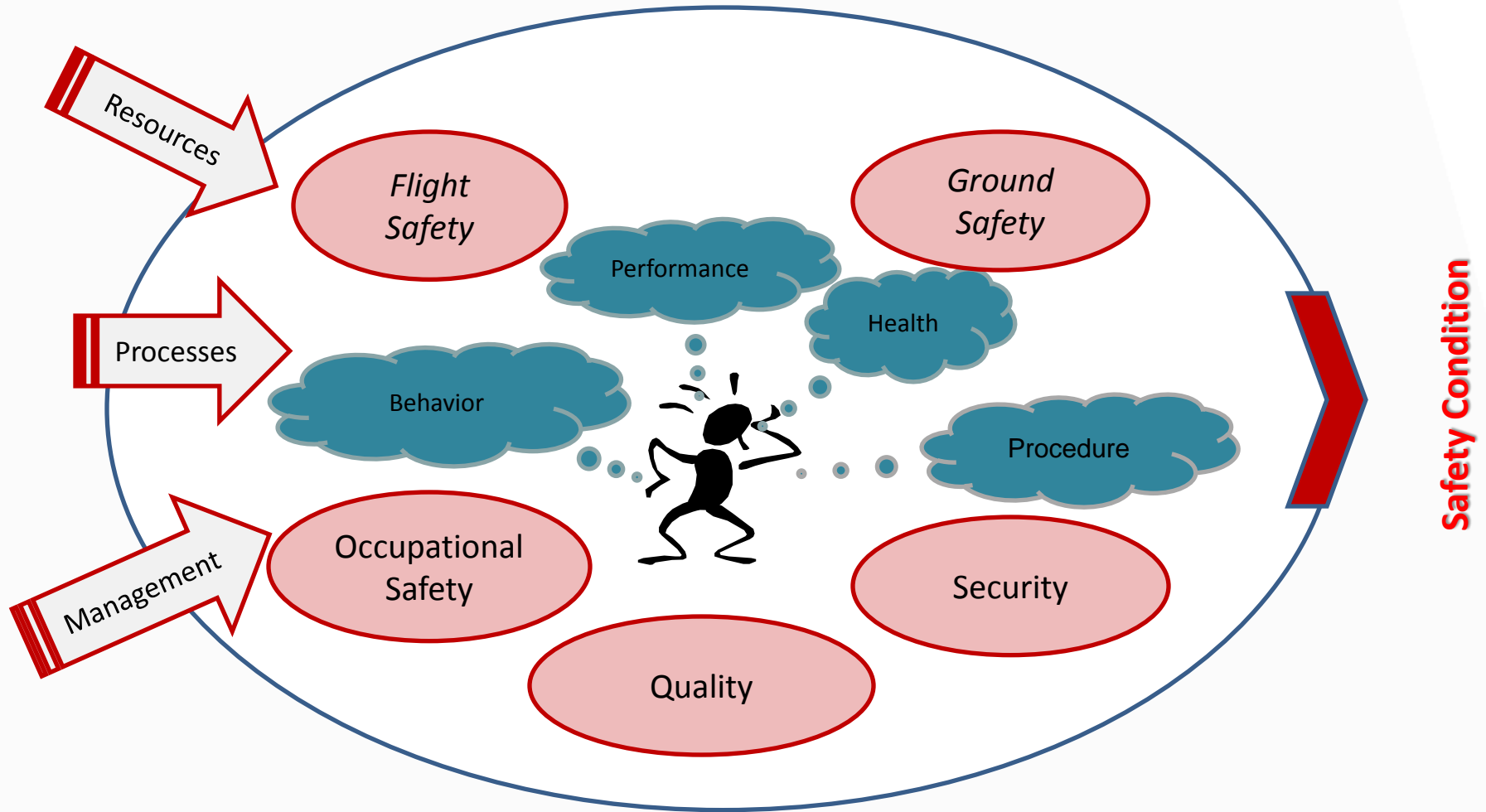
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Safety Assurance Manager



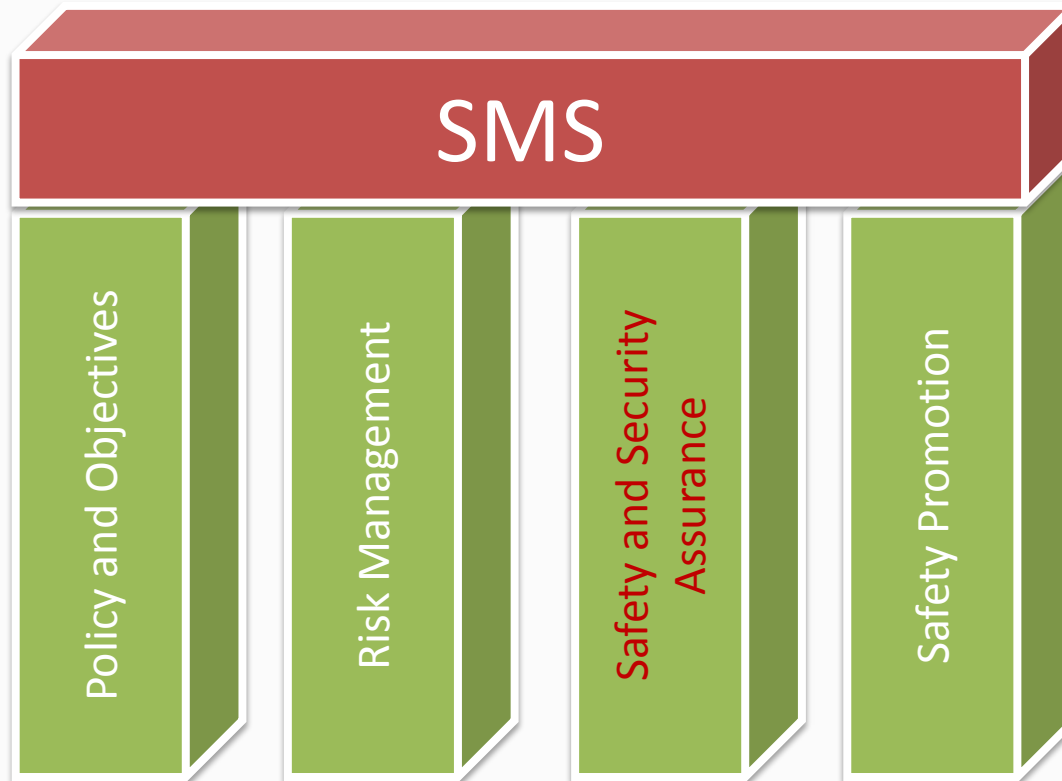
Agenda

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

Integraded Management System



SMS Pillars



IMS Structure



Hazard Identification Processes

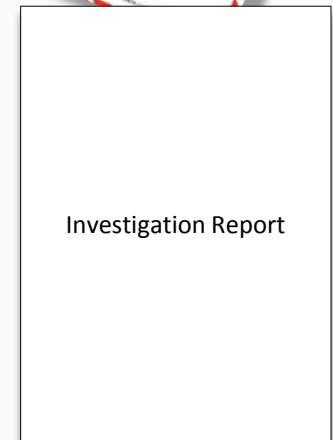
Internal Source

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



External Source

- Accident Reports;
- Industry ;
- External Audits.

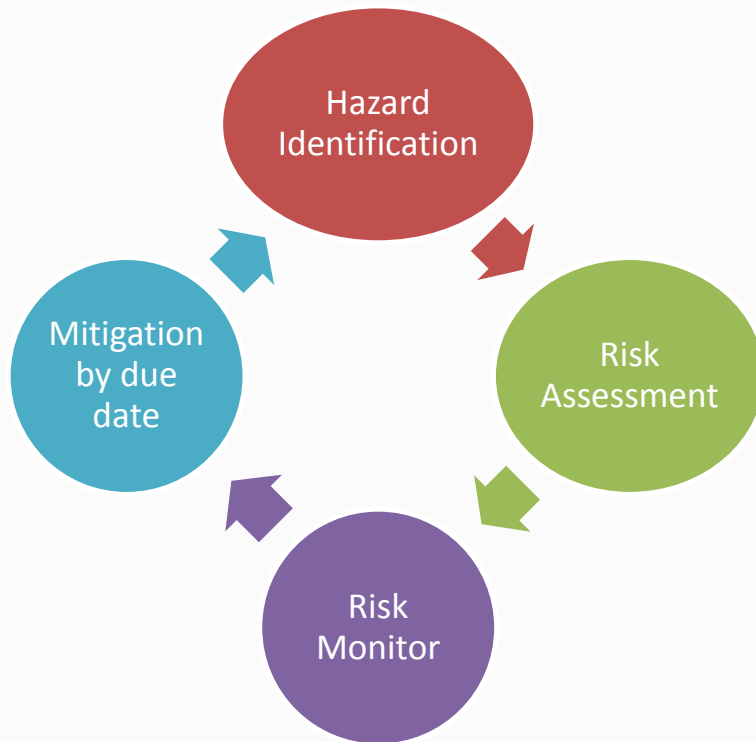


Risk Management



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

TCAS RA or
TA Warning

Hight Rate of descent
above 2000 *fts*

*Scape Slide
deployment*

unestablished
approach

What event can be measure?

Ground Operations

Dangerous Goods acceptance errors

Ground Damage

Unlawful Event

Aircraft loading error

Vehicle collision

Return of flight by technical problem

Dangerous Goods leaks

Efetividade errônea de componente na aeronave

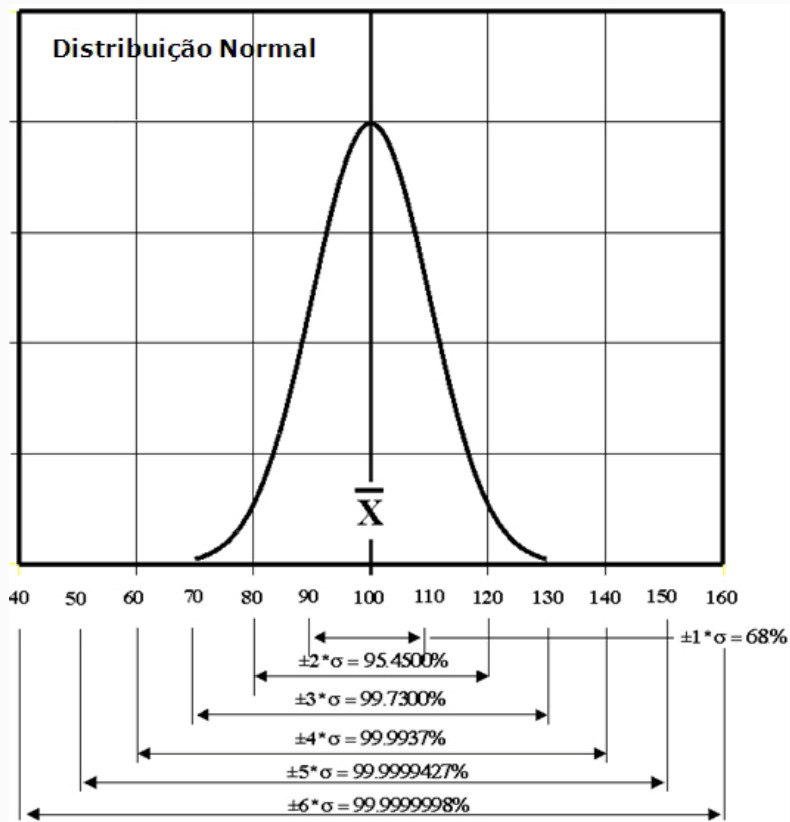
pre-flight interferences

Dispatches errors

FOD at ramp area

What can be measure?

Six Sigma – Failure Index



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

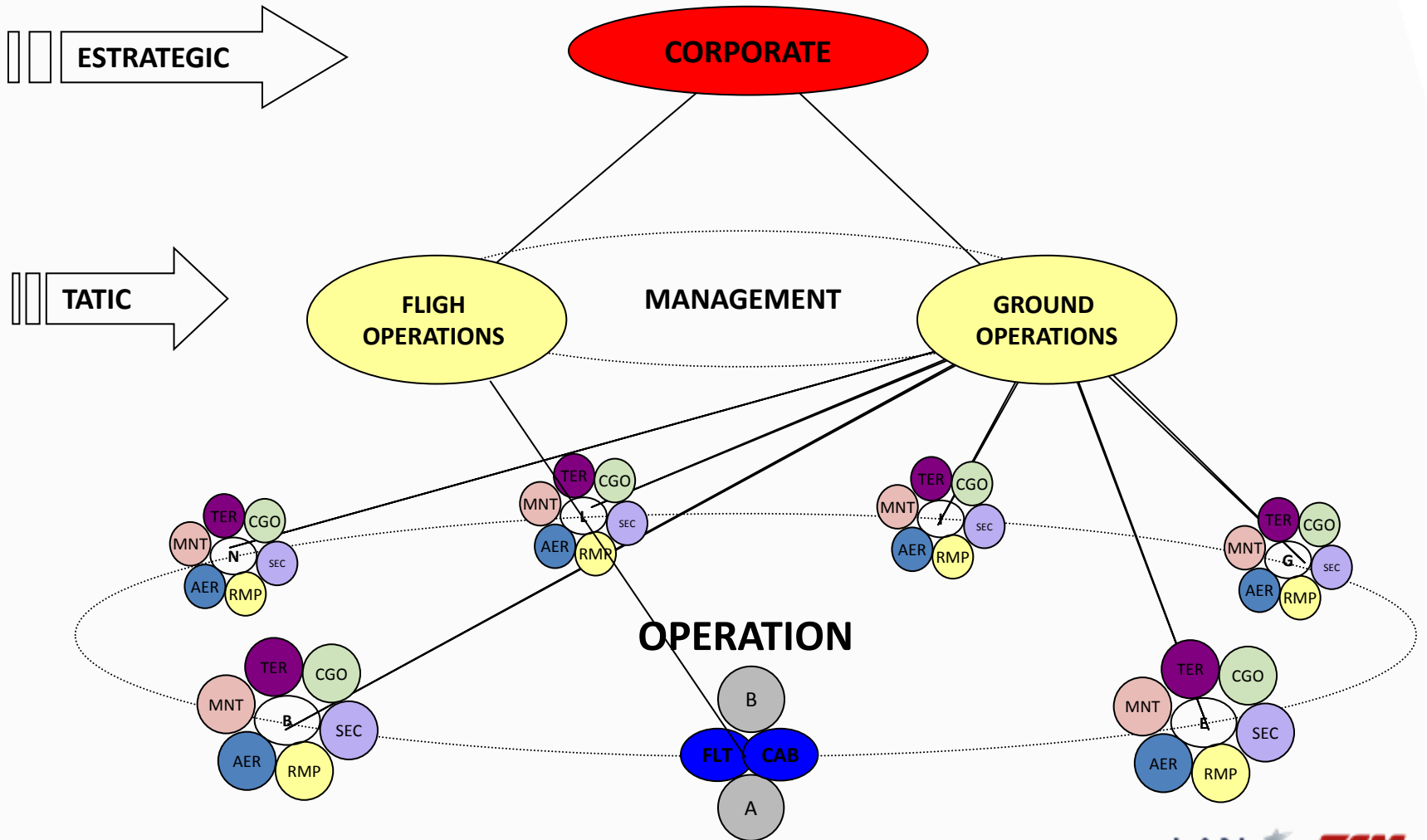
- 50% - Lower Level Performance Average;
- 50% - Comply with all recommendations and correctives action.

What can be measure?

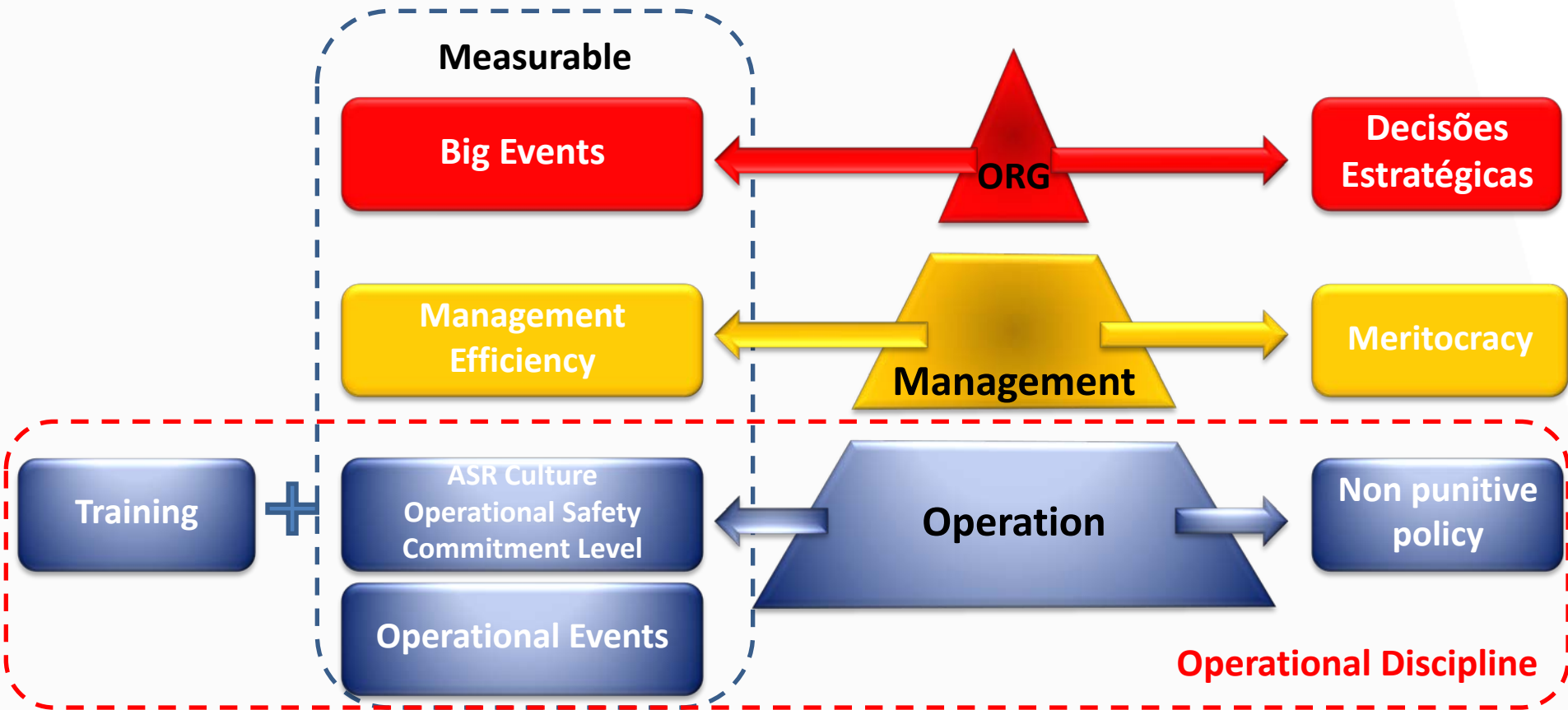
Corporate

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



Conclusion



Thank you

Any questions?

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