

Panel 4: SSP implementation

EASA ICF/5: Hong Kong, 9-10 December 2015

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Your safety is our mission.



EASA
European Aviation Safety Agency

 **Moderator**

 **Panellist**

Panel 4

Luc Tytgat

**Alan
Shum**

**Walid Al
Rahmani**

Your safety is our mission.

EASA is an agency of the European Union 

The European Aviation Safety Plan and Programme

A pioneer approach for safety

Luc Tytgat
Strategy and Safety Management Director

Your safety is our mission.

EASA is an agency of the European Union






The EASA System

The sharing of roles in EU – Aviation Safety

Legislative Role		Commission, assisted by EASA
Executive Role		NAA, assisted by EASA 
Monitoring Role		Commission, assisted by EASA

 or directly EASA, *when the legislator decides this is more convenient for the whole EU system*



ICAO SSP FRAMEWORK

1. **State safety policy and objectives**
 - 1.1 State safety legislative framework
 - 1.2 State safety responsibilities & accountabilities
 - 1.3 Accident and incident investigation
 - 1.4 Enforcement policy
2. **State safety risk management**
 - 2.1 Safety requirements for service providers SMS
 - 2.2 Agreement on service providers safety performance
3. **State safety assurance**
 - 3.1 Safety oversight

EU holds the competency to establish safety requirements for Service Providers' SMS -Regulation EC nº 216/2008

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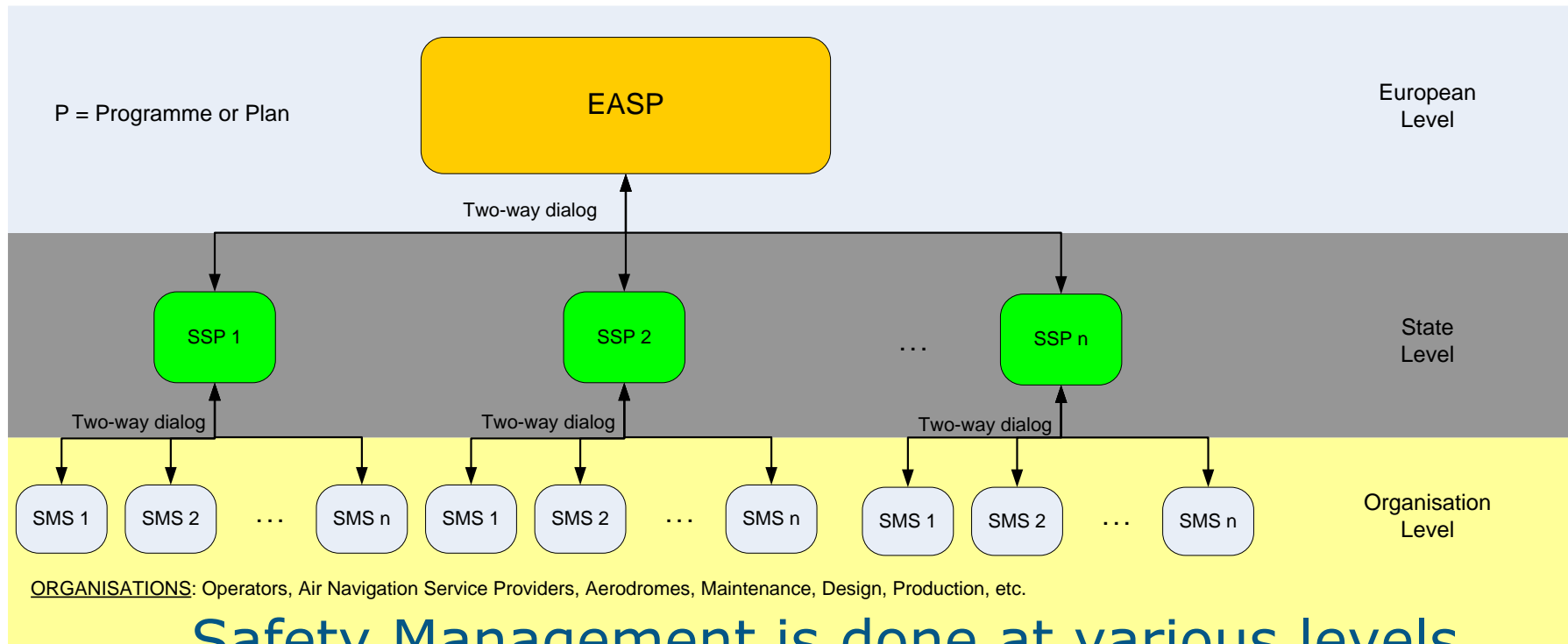
The EU/EASA System



MS and
EASA/EU need
to work
together to
enact an SSP



Safety Management Systems



Safety Management is done at various levels.



Definitions

Strategy

- The European Safety Strategy is a set of ***policies and objectives*** which are laid down by the European Commission

Programme

- The European Aviation Safety Programme is an integrated set of ***regulations and activities*** aimed at improving safety

Plan

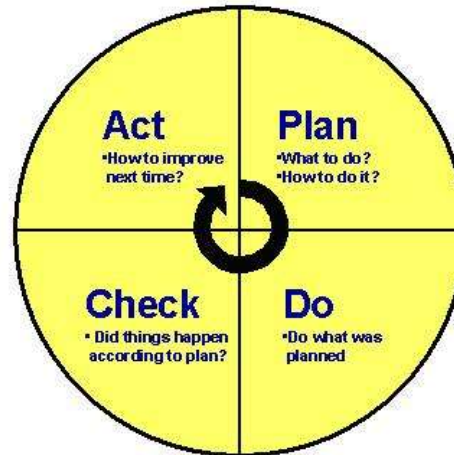
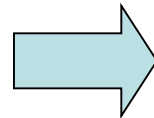
- The European Plan for Aviation Safety is a high level safety issues ***assessment*** and related ***action*** plan
- The Plan is a key element of the EASP



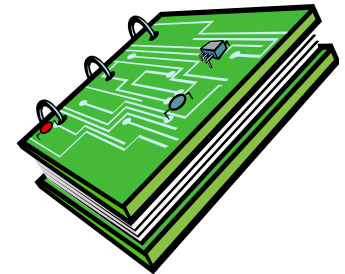
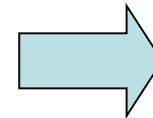
What is the overall approach?



Strategy



Programme



Plan



Risk Management at EU Level

EASP

Comprehensive Safety Programme for the Region

Goals

EC spells out the Strategy

EPAS

EASA facilitates risk mitigation and monitoring



Regional SSP cooperation – The EU experience





Framework

the European
Aviation Safety
Programme -

EASPF

Input

safety data
and
information

Tool

the European
Plan for
Aviation
Safety-EPAS

Legal basis

Reg. 216/2008
and its IRs

Reg.376/2014

management of
aviation safety

at EU level

Risk management at EU level - EPAS process -





Big Data 4 Aviation Safety

Way ahead for safe civil aviation

Search for
precursors of
accidents
“See it coming”

Risk Based
Oversight
“Know where to
look”

Need for critical
mass of data, data
fusion and serious
analytical capacity





Big Data 4 Aviation Safety



A **voluntary** and **collaborative** partnership amongst all stakeholders



Independent governance to reflect the partnership and collaborative approach (dual management authorities/industry)



Data Processing Organisation to manage the Big Data solution



Outcome shared for the benefit of the whole community (Risk identification and analysis)



Linked with other international initiatives (US, Asia-Pacific, IATA,...)



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Implementation of the SSP in Hong Kong

5th EASA International Cooperation Forum
10 December 2015

Alan SHUM

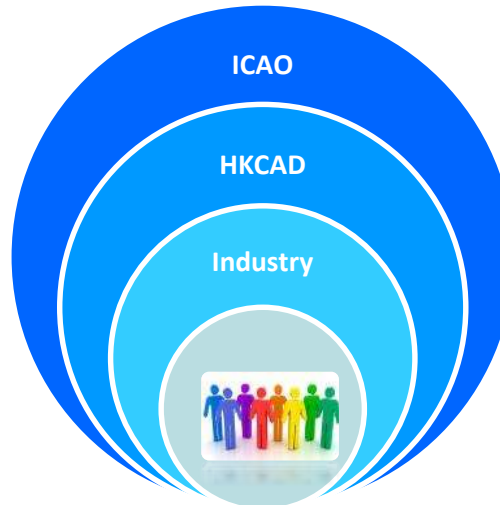
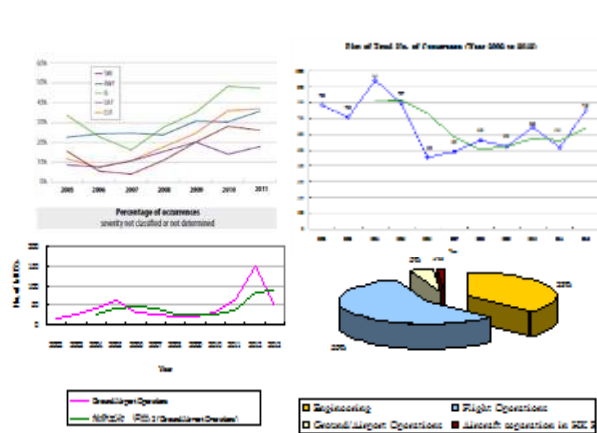
Assistant Director-General of Civil Aviation
Air Services and Safety Management Division
Civil Aviation Department



Contents

1. Global/Regional Developments

2. Implementation of SSP in Hong Kong



State Safety Programme

1. **State Safety Policy and Objectives**
2. **State Safety Risk Management**
3. **State Safety Assurance**
4. **State Safety Promotion**

Global / Regional Developments



Air Traffic Projected
by ICAO to ***Double***
in the next ***15 years***



Proactively manage current and emerging
Safety Risks

Challenges :

How to maintain or improve safety as aviation system becomes more complex?



Systematic approach (e.g. SSP, SMS)

ICAO

HK



Global / Regional Developments



Launched a New USOAP Audit Programme and Annex 19

Formulate Strategic Plans

Strengthened Global / Regional Collaboration

Enhanced Sharing of Safety Information / Data

A Progressive and Tiered Approach to Continuous Safety Improvement



The cover features a stylized graphic at the top left showing a globe with blue and green segments, representing different regions or themes. Below it, the title "Hong Kong Safety Programme 2014 - 2017" is prominently displayed in a bold, black font. The background of the lower half is a photograph of a beach scene under a vast, blue sky with scattered white clouds. In the distance, there are silhouettes of buildings and hills. A large, curved, light-blue shape frames the bottom right corner of the image. At the very bottom, there is a small line of text in Chinese characters, which appears to be the publisher's information.



SSP Development (2013 – 2014)

May 2013

ICAO SMM updated



Oct - Nov 2013

ICAO Annex 19 + GASP



Strategic Safety
Office (SSO)
established in CAD



May 2013

**Sep - Nov
2013**

**Feb - Mar
2014**

June 2014

Oct 2014

Timeline

- Establish new **SSO** Office
- Begin **internal health check** process

- Begin **internal audit program**
- Consolidate **safety data**
- Conduct **industry briefing** on latest international safety development

- 1st **SSP Implementation Committee Meeting** + SSP Action Plan
- Identify enhancement areas (3rd SSP Gap Analysis)

- Complete 1st **holistic Annual Safety Review**
- Begin **Quarterly** safety review

- Publish 2nd **edition of HKSP** (safety / enforcement policy + SSP timetable etc.)

How is SSP implemented in HK ?

State Safety Programme (SSP)

Component 1 Safety Policy

What is our
regulatory
basis ?

- AN(HK)O
- ICAO GASP
- ICAO Annex 19
- ICAO SMM
- HK SSP

Component 2 Safety Risk Management (SRM)

How to accept
industry's
safety
performance ?

- Periodically review SMS requirements
- Periodically review / accept industry's safety performance

Component 3 Safety Assurance (SA)

How to assure
our safety
oversight
activities ?

- Internal process review
- Regular review + multidisciplinary action to incorporate **PBR*** elements and target safety concerns.

Component 4 Safety Promotion

How to train
and empower
aviation
personnel ?

- Periodic safety knowledge and information sharing
- SSP/SMS training
- Internal and External safety promotion activities

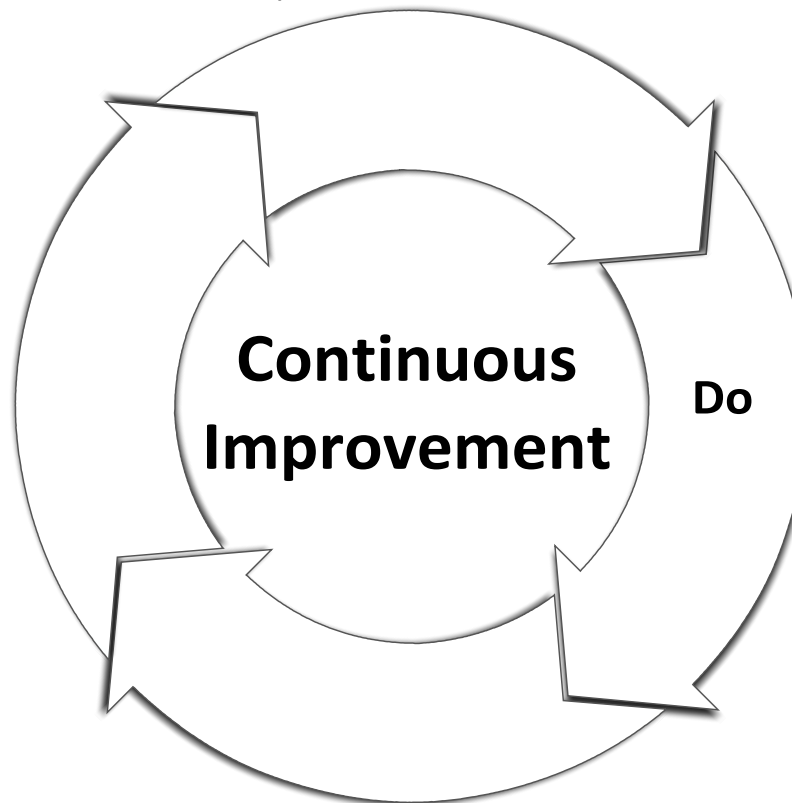
HK Safety Improvement Process

Safety Plan

- **Safety Policy**, targets and actions
- Performance Indicators & planned improvement
- Safety Surveillance Plan

Management Review

- Effectiveness of actions
- Safety communication
- Safety partnership



Implement Plan

- Refine safety oversight
- Safety surveillance
- Training
- Documentation
- Safety promotion

Check Compliance

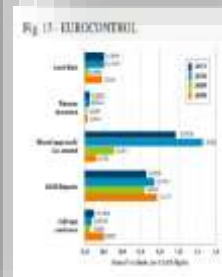
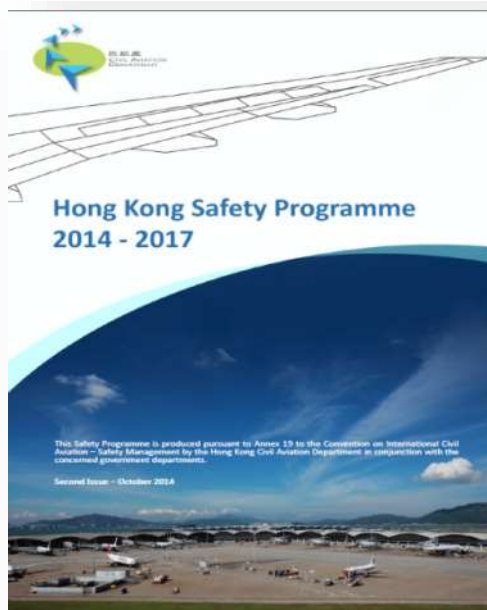
- Measure & monitor performance
- Check for non-conformance through internal review

SSP Implementation in HK

HK Safety Programme

Holistic Safety Review

Safety Promotion



- Safety Policy & Safety Target
- Implementation Plan 2014-17
- Enforcement Policy etc.

Multi-disciplinary Data Analysis

- Safety Trends
- Areas requiring Special Attention
- Improvement Measures

- Safety Management Forum
- Sharing with Industry Partners

Data Analysis in Hong Kong

SSP Component 3

- Data-driven targeting areas of higher concerns

3.	State Safety Assurance
3.1	Safety oversight
3.2	Safety data collection, analysis and exchange
3.3	Safety-data-driven targeting of oversight on areas of greater concern or need

How ?

- Good safety record → “Small Number” Challenge in safety measurement → Use proactive data to **maintain/improve safety** (“Total systems approach”)



Salient Tasks 2015 - 2017

2014-17 Action

Task	2014	2015	2016	2017
1. Refine "SRM" e.g. periodic review of industry SMS and safety performance				
2. Monitor SSP Gap Analysis Action progress				
3. Update internal guidance e.g. risk-based surveillance (+ PBR elements) & enhance internal process for SM training				
4. Enhance "Compliance / Performance - based oversight"				
5. Implement SSP fully				

Jan 2015

Jan 2015
Onwards

June 2015

Dec 2017

Timeline

Refine "SRM"
e.g. periodic
review of
industry SMS
and safety
performance

Monitor SSP Gap
Analysis Action
progress

Update internal
guidance e.g.
risk-based
surveillance (+
PBR elements) &
enhance internal
process for SM
training

- Enhanced
"Compliance /
Performance -
based
oversight"
- Implement
SSP fully

Conclusion & Way Forward

Hong Kong Position

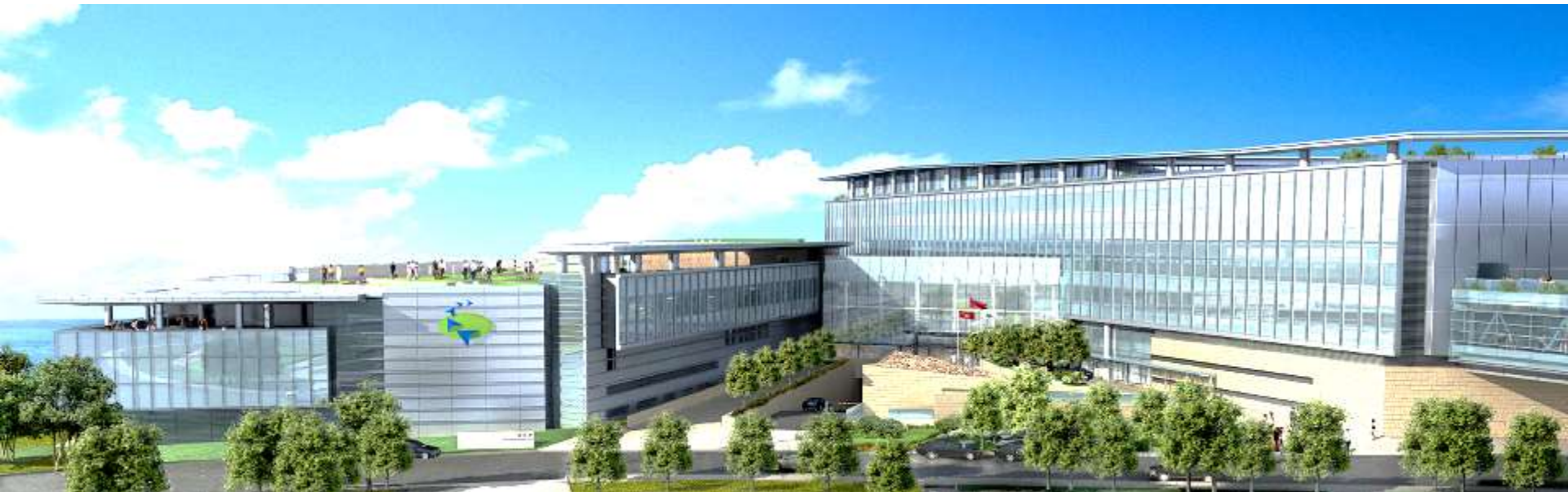


- ➔ **Support** the global / regional safety initiatives.
- ➔ **Maintain Safety Performance** above global average.



- ➔ **Position HK** as a **leader** in promoting safety within the region
- ➔ Reinforce **Safety Culture**
- ➔ Foster **Safety Partnership** across Sectors

Thank You





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الهيئة العامة للطيران المدني
GENERAL CIVIL AVIATION AUTHORITY

STATE SAFETY PROGRAMME CHALLENGES

رؤيتنا: منظومة طيران مدني آمنة ورائدة ومستدامة
OUR VISION: A LEADING, SAFE, SECURE AND SUSTAINABLE CIVIL AVIATION SYSTEM

PQ ORG (CE 3)

PROVISION OF THE NECESSARY RESOURCES FOR
THE IMPLEMENTATION AND MAINTENANCE OF
THE SSP?

RESOURCES

SL AN 8/3-15/46

3.2 State safety policy, objectives and **resources**



RESOURCES

3 States shall establish relevant authorities supported by **sufficient and qualified personnel** for the management of safety.



RESOURCES

GASP

Investment in human and technical resources to achieve global safety objective and to ensure that safety initiatives yield the intended benefits



RESOURCES

GASP

SSPs and SMS require additional resources, personnel retention, or different skill sets to support the collection, analysis and management of information required for a risk-based decision-making process.



RESOURCES

LOWEST EI IN 2104 CE 4



PARADIGM SHIFT

MECHANICAL THINKERS



WHAT DO HUMAN RESOURCES NEED?

KNOWLEDGE IN:

- SAFETY DATA MANAGEMENT;
- SAFETY RISK ASSESSMENT;
- JUDGEMENT BASED ON THE ANALYSIS OF MULTIPLE DATA SOURCES;
- TARGET SETTING

WHAT DO HUMAN RESOURCES NEED?

- UNDERSTANDING OF THE PRINCIPLES OF SAFETY MANAGEMENT AND THEIR APPLICATION INTO SMS; AND
- UNDERSTANDING AND IMPLEMENTING ,IN WORK PRACTICES, THE PRINCIPLES OF SAFETY MANAGEMENT AND THE CONCEPTS OF JUST CULTURE IN ORGANISATIONAL PROCESSES.

WHAT DO HUMAN RESOURCES NEED?

- TOOLS
- EFFICIENT WORK METHODOLOGIES
- USEFUL DATA AND INFORMATION
- SUPPORT

WHY THINGS DON'T WORK AS EXPECTED?

INVOLVEMENT



WHY THINGS DON'T WORK AS EXPECTED?

CHANGE MANAGEMENT



WHY THINGS DON'T WORK AS EXPECTED?

SAFETY CULTURE



THIS MEANS

SMS AS CORE NAA BUSINESS

THANK YOU