FUTURE SKY SAFETY

THE SAFETY DASHBOARD USER GROUP

ANSP Safety Dashboard - Q4

Operational risks

APP-TGH — CORRECTIVE ACTIONS: Approach procedures completely increased due to new noise abatement measures. ATCOs reporting higher pressure also in off-peak times.

TWR-JHB — CORRECTIVE ACTIONS: Since start of site meeting on Dec 2016, for new terminal runway incursions increased.

ACC-STATE — CORRECTIVE ACTIONS: Sector design makes coordination with neighbour unit more difficult. Specific analysis on alternative sector design started.

APP-HKL — CORRECTIVE ACTIONS: A rising number of sub-optimal coordination with foreign ACC led to an increase of SMI in approach in Q4. A working group with foreign ACC has been set. Discussion started in Nov 2016.

TWR-HKL — CORRECTIVE ACTIONS: Concern for the interaction between VFR traffic patterns and missed-approach, both right sided. Need to review missed-approach presented to Head of APP Ops. First meeting on Feb 2016.

TOP 3 OPERATIONAL RISKS

TWR-HKL: Risk still with high frequency in Q4 due to exceptionally good weather.

APP-HKL: Due to rising traffic on HKL, severity likely to escalate for next year.

TWR-JHB: Occurred RIN were quite severe due to runway and taxiways geometry.

People in the System

Reporting Rates - SMI — Spontaneous / After notification

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV DEC

Participation to Safety Initiatives — CISM / HUMAN FACTORS

Q1 Q2 Q3 Q4

Participation to **CISM** courses is not increasing despite the communication campaign launched. Safety unit tasked to understand root causes.
Participation to Human Factors course for safety actors increased during the year. Possible need for local edition of the course, involving different staff.

Safety Culture — Unfavourable / Neutral / Favourable

Radar: MANAGEMENT COMMITMENT, RESOURCING, JUST CULTURE REPORTING & LEARNING, RISK AWARENESS, TEAMWORK, COMMUNICATION, RESPONSIBILITY, INVOLVEMENT

SMI / RIN / AI (per 100k movements)

Q1 Q2 Q3 Q4 — AI, SMI, RIN

Top 3 contributing factors

SMI		RIN		AI	
43%	Coordination issue with neighbouring Unit	32%	Coordination issue with ground vehicles	36%	Use of out-of-date charts (VFR pilots)
21%	Capacity overload	19%	Stop bars failure	16%	GPS issues
17%	Late instruction to conflicting aircraft	9%	Pilot mistake	11%	APW failure

Impact of Change

PROJECT	STATUS	RISK B	RISK C	UNITS AFFECTED	COMMENTS
P01.07 – CPDLC	STARTED on time	1	2	ACC-STATE	B risks due to unsatisfactory latency and coverage. C risks due to specific need for combined instructions at the border with TMA. Improvements being conceived for all risks.
P00.05 – FPL server upgrade	IN PROGRESS delayed	2	0	APP-TGH	Major issue with the conversion of data format to be mitigated in Phase II
P00.03 – Integrated CWP label	IMPLEMENTED delayed	1	2	All	All safety requirements implemented - exception of last training module for ATCOs
P02.05 – New handover procedure	IN PROGRESS delayed	0	1	TWR JKB	Residual risk concerning inclusion of information on ground operators manoeuvres.
P03.01 – Ground surveillance implementation	IN PROGRESS on time	0	1	TWR HKL	Monitor configuration deemed not valid by ATCOs during last RTS. Need to propose different layout.

Technical malfunctioning with operational impact

Number of events / Cumulated hours

Q1 Q2 Q3 Q4

European Safety KPI

EOSM — Level of Effectiveness of Safety Management System

A B C D E — Safety Policy and Objectives / Safety Risk Management / Safety Assurance
A B C D E — Safety Promotion / Safety Culture

RAT usage — % of RAT application

SMI: 60% / 87.5%
RIN: 82% / 100%
ATM Specific occurrences: 56% / 73%

JUST CULTURE — % "YES" answers to EASA survey

65% / 87.5%

External safety factors

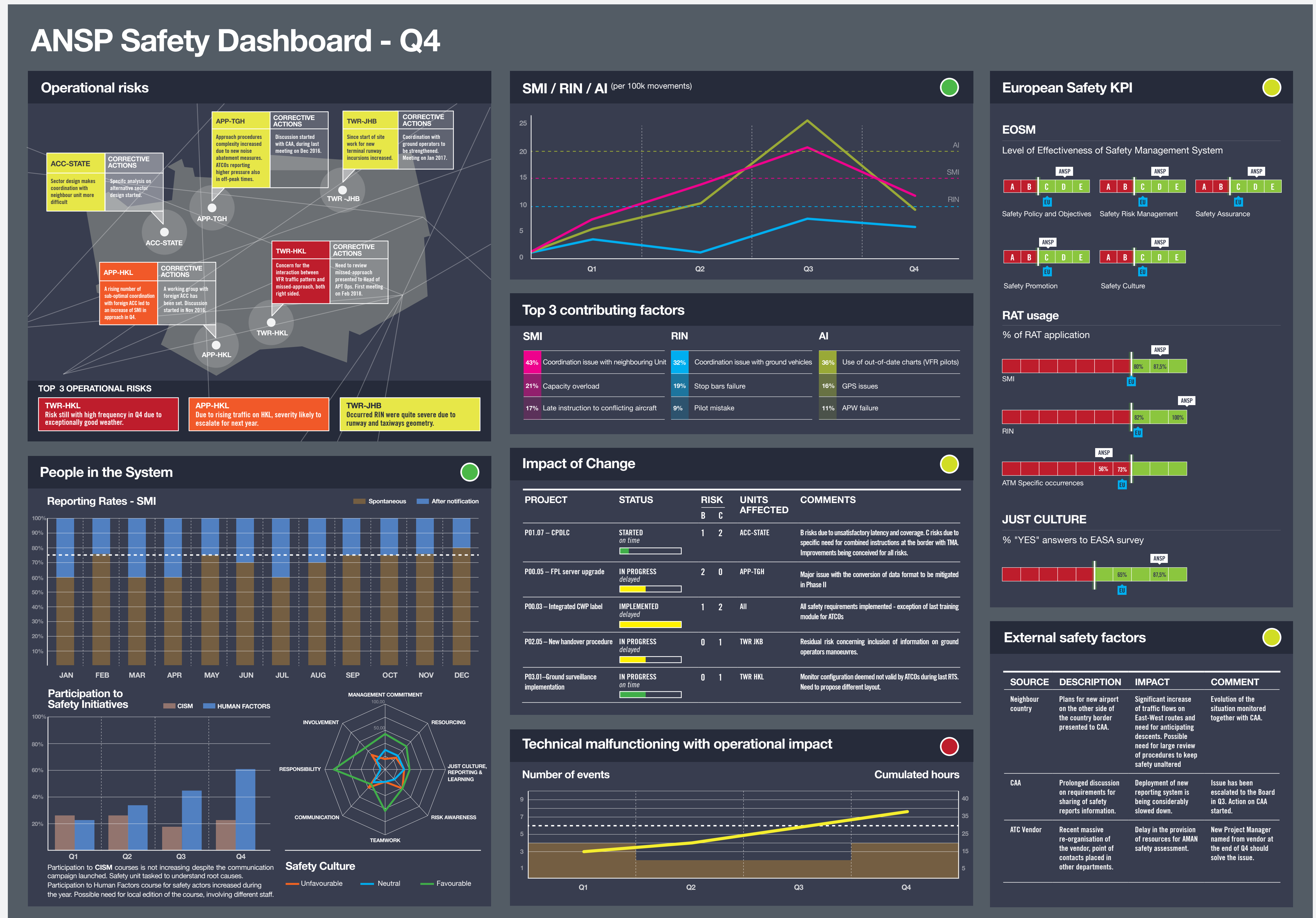| SOURCE	DESCRIPTION	IMPACT	COMMENT
Neighbour country	Plans for new airport on the other side of the country border presented to CAA.	Significant increase of traffic flows on East-West routes and need for anticipating descents. Possible need for large review of procedures to keep safety unaltered	Evolution of the situation monitored together with CAA.
CAA	Prolonged discussion on requirements for sharing of safety reports information.	Deployment of new reporting system is being considerably slowed down.	Issue has been escalated to the Board in Q3. Action on CAA started.
ATC Vendor	Recent massive re-organisation of the vendor, point of contacts placed in other departments.	Delay in the provision of resources for AMAN safety assessment.	New Project Manager named from vendor at the end of Q4 should solve the issue.

In the context of Future Sky Safety P5 work on Safety Intelligence, we created a Safety Dashboard (SDB) User Group, made up of six ANSPs - AUSTROCONTROL, AVINOR, ENAV, MUAC, NATS and Skyguide. We interviewed Safety Directors / Managers to understand what information SDBs provide, as well as why and how such Dashboards are used. We then ran a two-day workshop to enable an exchange of experiences and best practices on SDB between User Group members. From this workshop we identified strengths and weaknesses of current safety dashboards together with possible trajectories for their evolution (from paper to digital, from manual to automated etc.).

The Prototype Safety Dashboard
This is a static SDB, based on the outcome of the two brainstorming sessions within the User Group, aimed at designing an optimised dashboard for top (i.e. executive level) management. Featured indicators are areas to be explored while presenting safety information during quarterly reviews, rather than exhaustive indicators. The next step will be designing a digital SDB prototype for middle managers, offering advanced interactivity to support data exploration and exploitation using statistical analysis. User Group members indicated these capabilities as key enablers for sense-making of an increasing amount of digital safety data.