

**/bucharest
airports**

annual safety report

2023

Bucharest Airports National Company | **Aerodrome Safety Department**



BMSHC 30/25/01/2024

contents_

Aerodrome Safety Department is a key component of the organisation and its mission is to maintain and further improve the performance of our Safety Management System.

The vision is embedded in the Safety Policy and is implemented in every procedure and action. For us, the annual safety report is not only a tool of good governance but also an opportunity to communicate our achievements, goals and challenges to airport community.

We believe that safety involves us all and every action that we plan and execute should take into consideration the possible impact on safety of our operations.

/policy&culture

SMS Management at Bucharest Airports
National Company

03

/context

05

main features of airports infrastructure and traffic

/weather

Meteo statistical data & their impact on operations

11

/risk management

summary of department actions during 2023

15

/cooperation

inter-institution events in wich our department had a contribution

21

/training

safety training programme highlights

23

/review

safety key performance indicators review

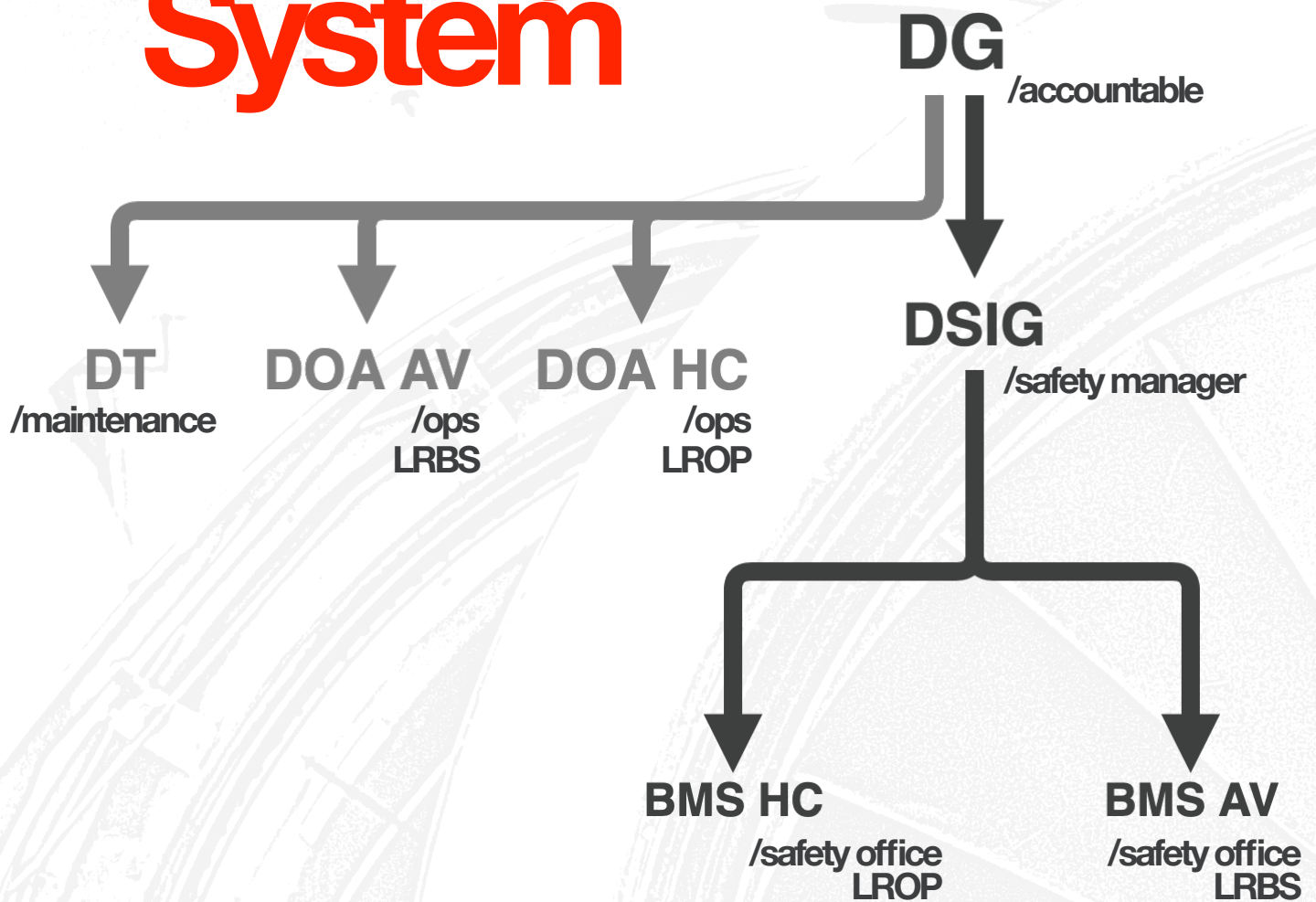
25

/outlook

main projects for airport and SMS development

39

Safety Management System



policy
& culture

Bucharest Airports National Company

AEROPORTURI
BUCUREȘTI®

/accountable
MANAGER

Gabriel BULGARU

GENERAL MANAGER
Bucharest Airports National
Company

/safety
MANAGER

Cristian ALEXE

Manager
Safety Department

/safety office
HEAD

Radu BONDAR

Head
LROP Safety Office

/safety office
HEAD

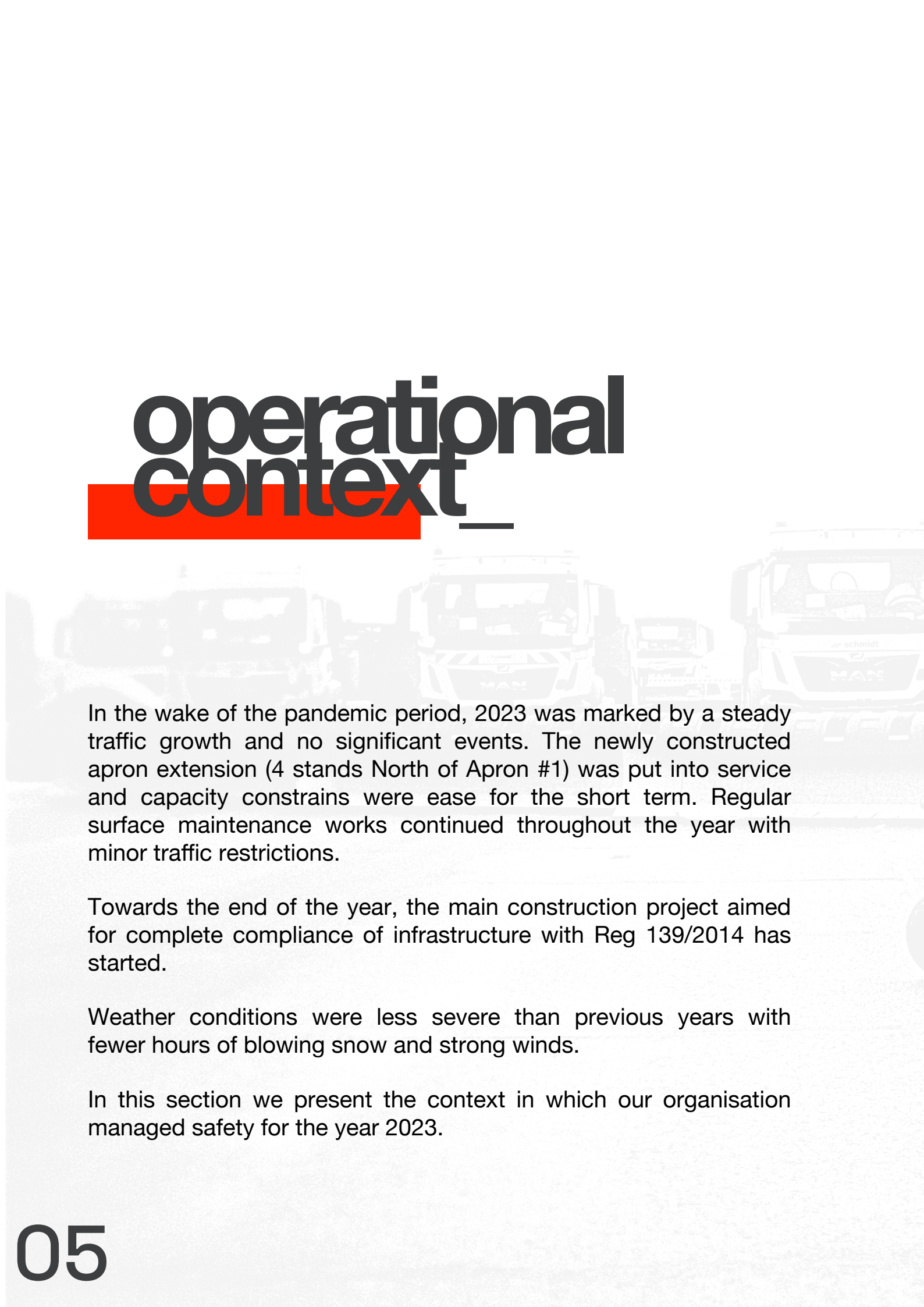
Mircea CIUCĂ

Head
LRBS Safety Office

The organisational framework of the Safety Department is R139/2014 compliant. Aerodrome Safety Department primary focus is SMS implementation, under the supervision of the Safety Manager.

Bucharest Airports National Company (BANC) organisational complexity and structure (multiple functions on both aerodromes) requires establishment of dedicated safety offices to support Safety Manager's tasks.

operational context_



In the wake of the pandemic period, 2023 was marked by a steady traffic growth and no significant events. The newly constructed apron extension (4 stands North of Apron #1) was put into service and capacity constraints were eased for the short term. Regular surface maintenance works continued throughout the year with minor traffic restrictions.

Towards the end of the year, the main construction project aimed for complete compliance of infrastructure with Reg 139/2014 has started.

Weather conditions were less severe than previous years with fewer hours of blowing snow and strong winds.

In this section we present the context in which our organisation managed safety for the year 2023.

Risk management

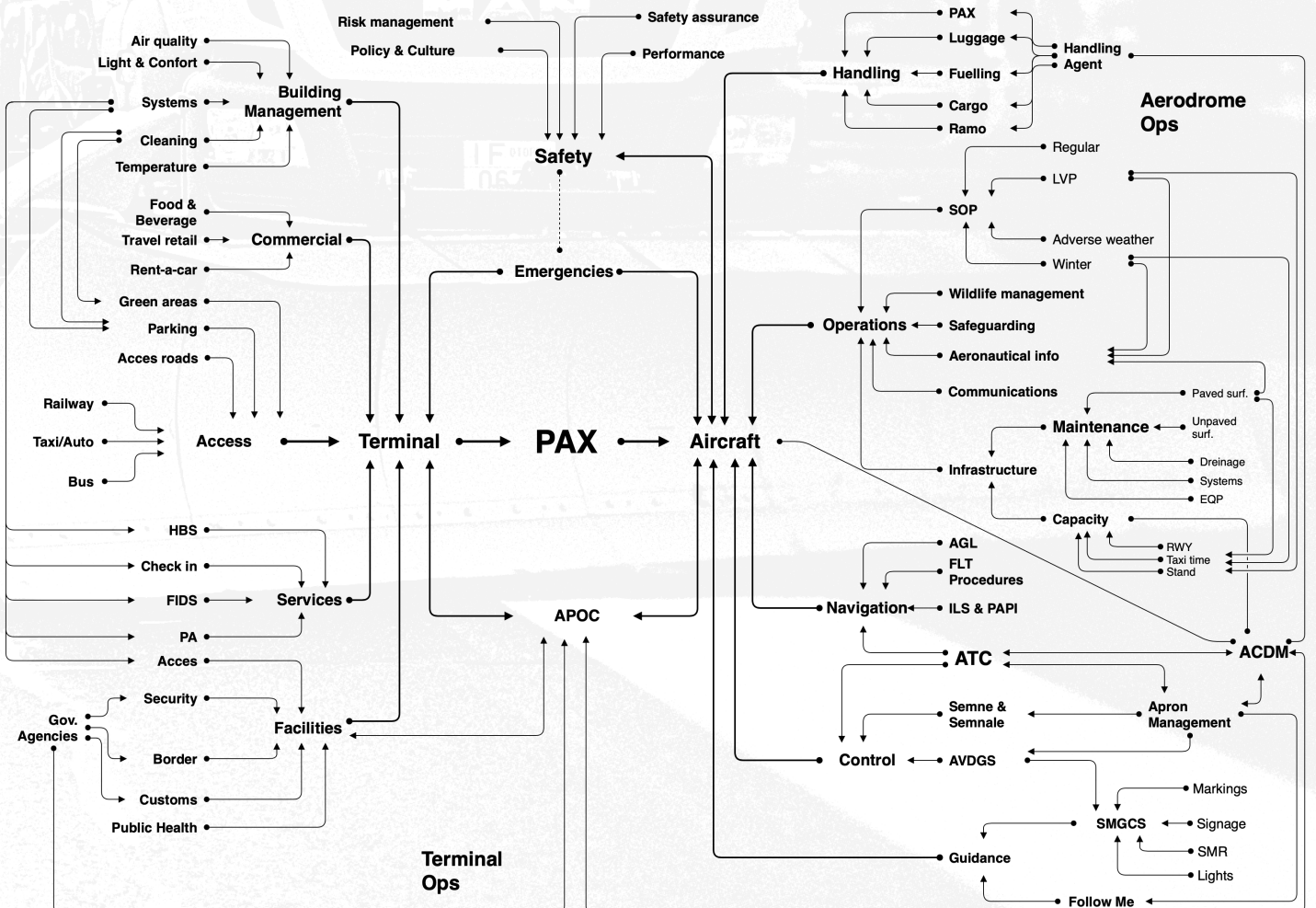
Policy & Culture

Safety assurance

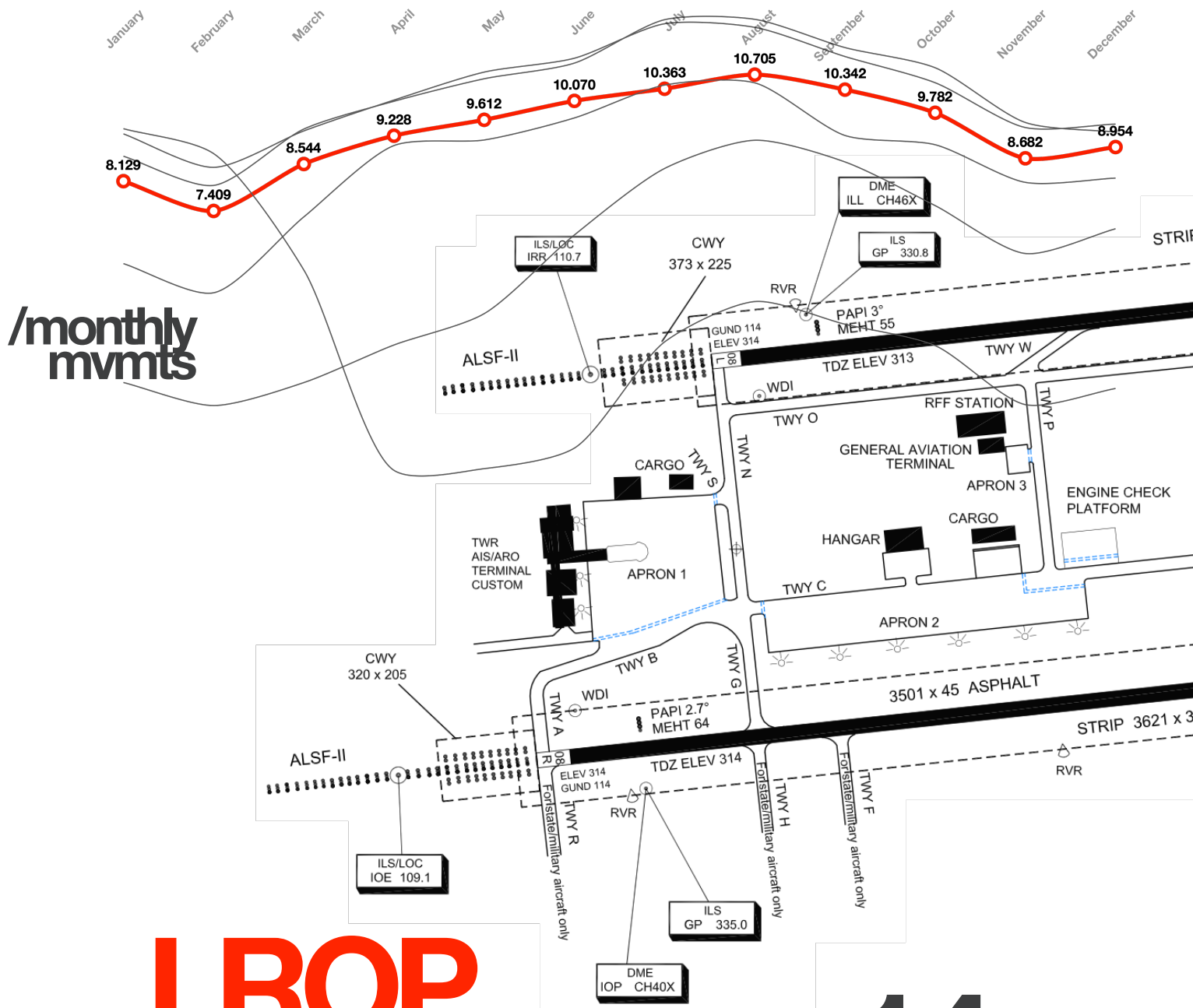
Performance

Safety

Emergencies



context¹



LROP
OTPAPXH
LROPRAYD

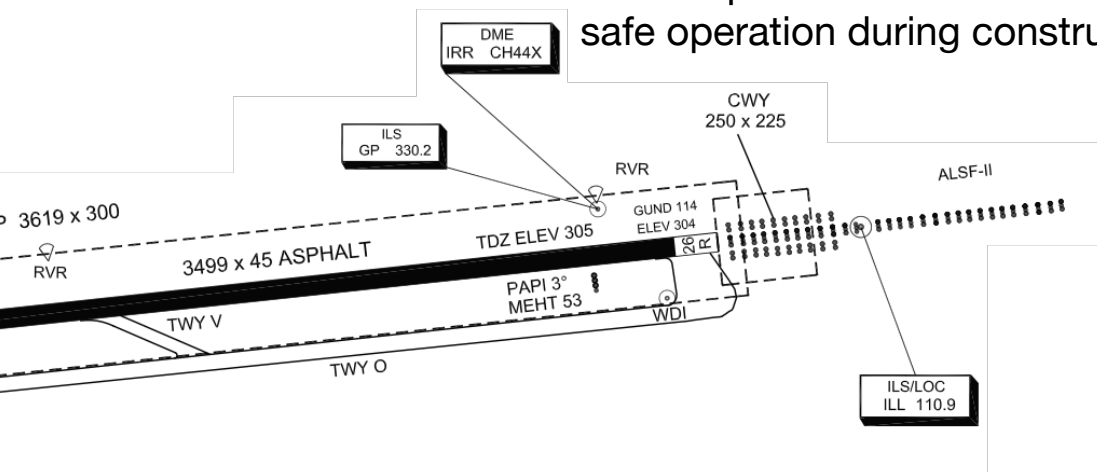
14.6
MPax

Bucharest Henri Coanda International Airport (LROP) is the main gateway of Romania for air traffic. More than 65% of the 24 MPax traveling to or from Romania are using our infrastructure.

/avg.
monthly
mvmts **8.100**
+15%
-20%

infrastructure: In 2023 the project for complete compliance with 4E specifications has started.

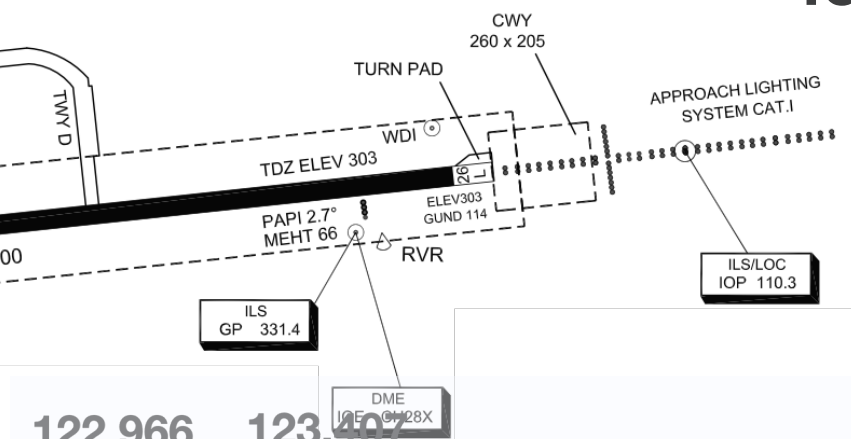
Change Management was extensively used for predicting the evolution of airport system after the completion. Work Permits were issued for safe operation during construction works.



/aerodrome
reference
code

4D+

Higher code
letter aircraft
operations



122.966

123.407

102.108

111.820

/annual
mvmts

+9.5%
growth

52.288

72.190

2018

2019

2020

2021

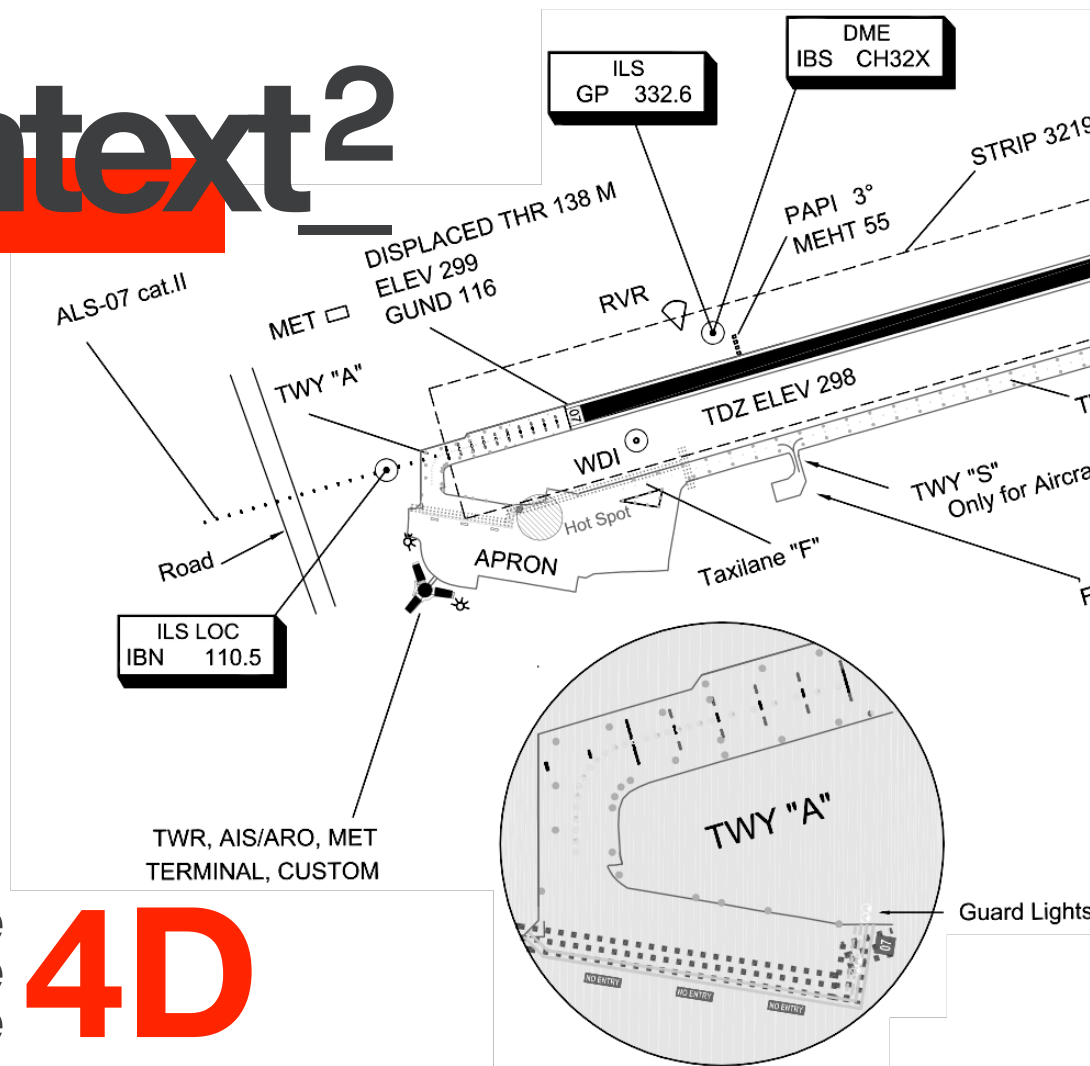
2022

2023

08

LRBS BBUAVXH LRBSRAYD

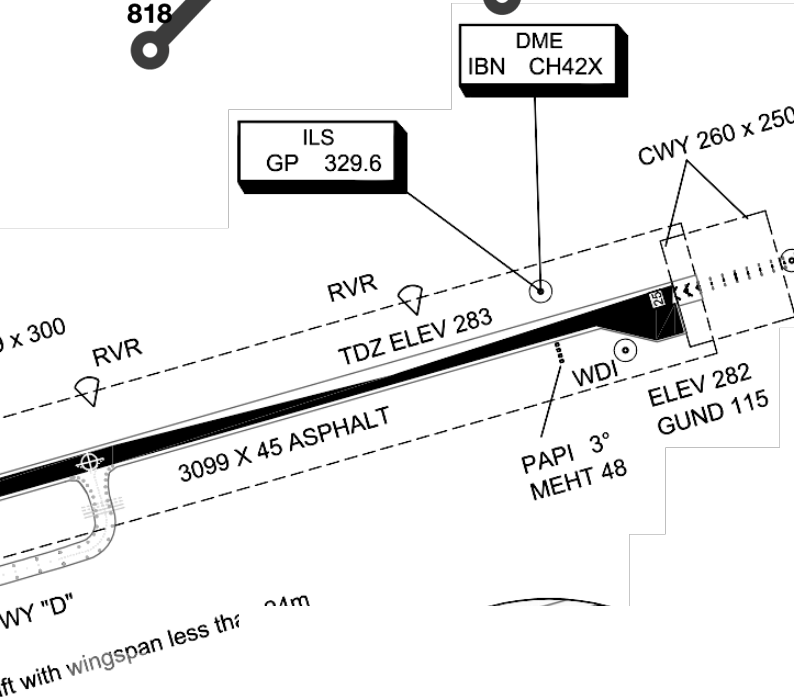
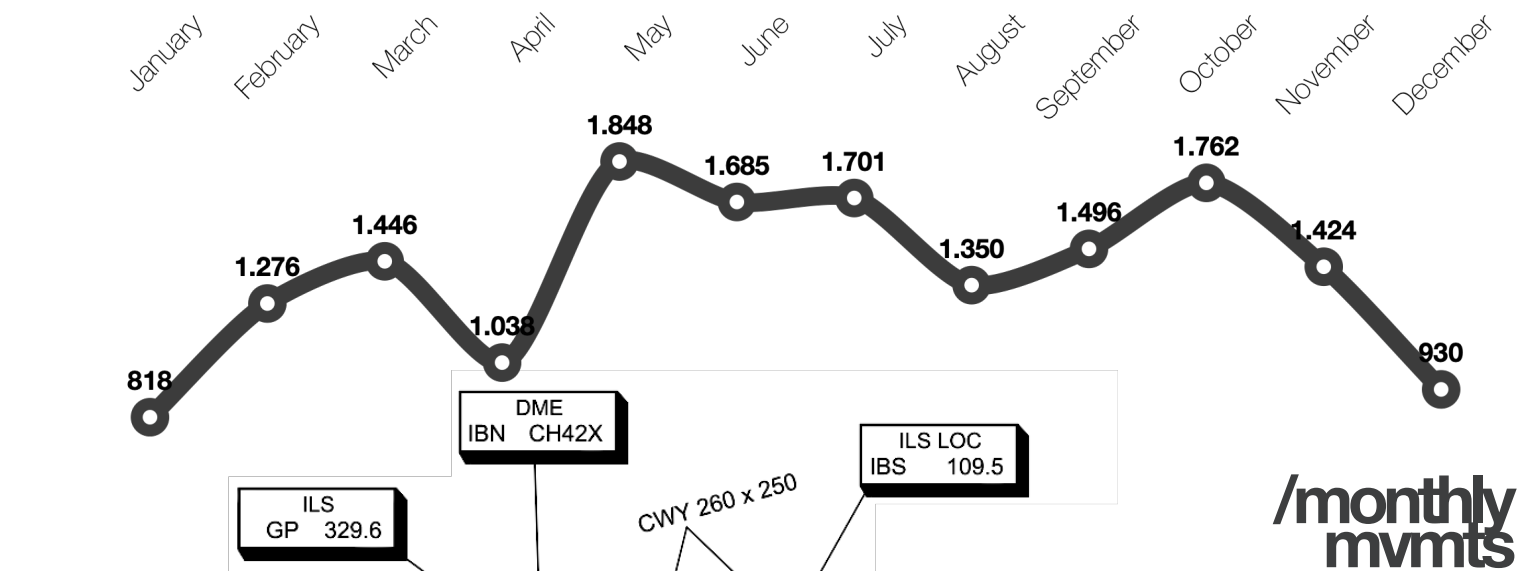
context₂



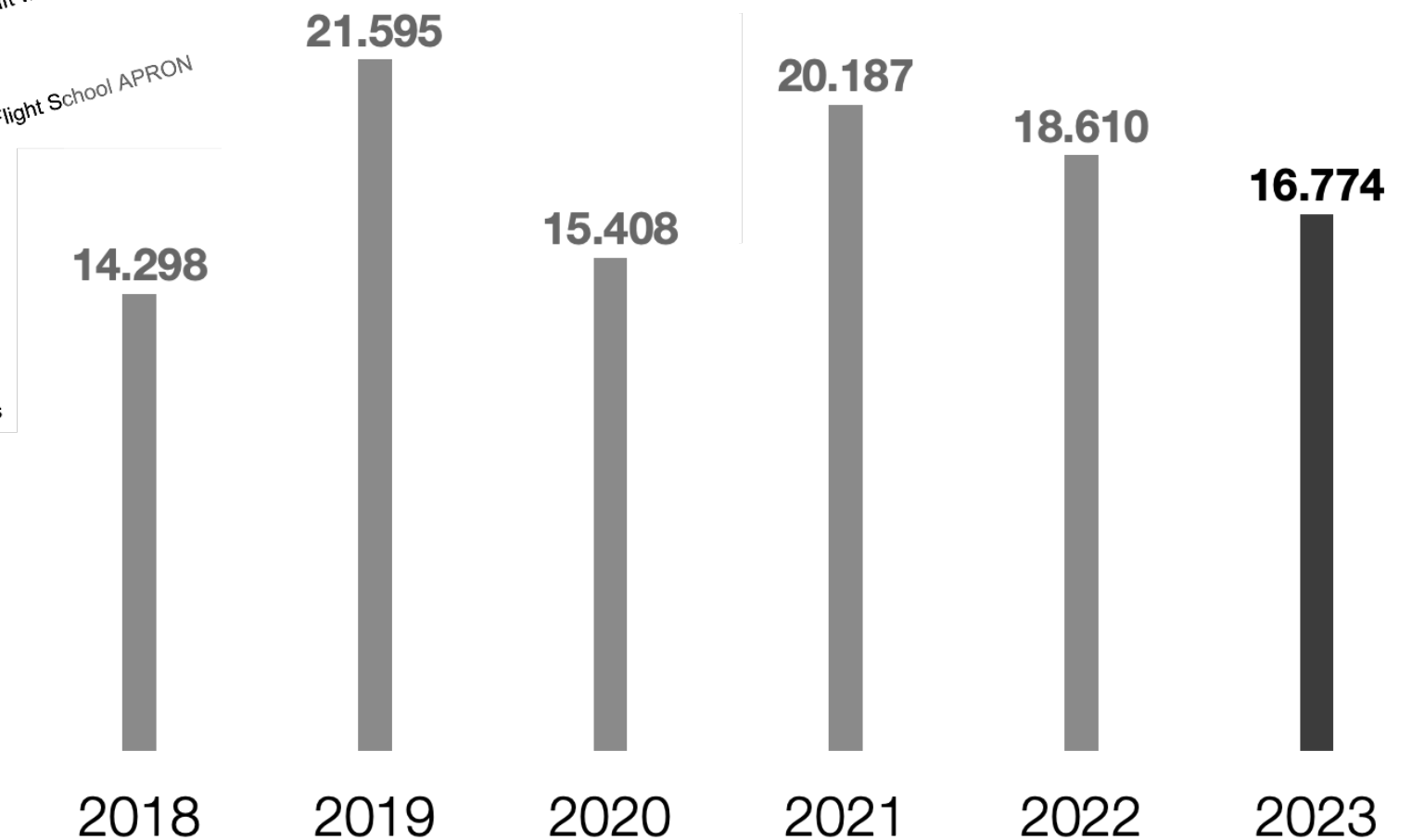
/aerodrome
reference
code **4D**

LRBS main safety challenges arise from specific traffic characteristics represented by its irregular and unpredictable operations schedule. Moreover, urban area location along with real estate accelerated dynamic has generated additional pressure on aerodrome safeguarding and wildlife management.

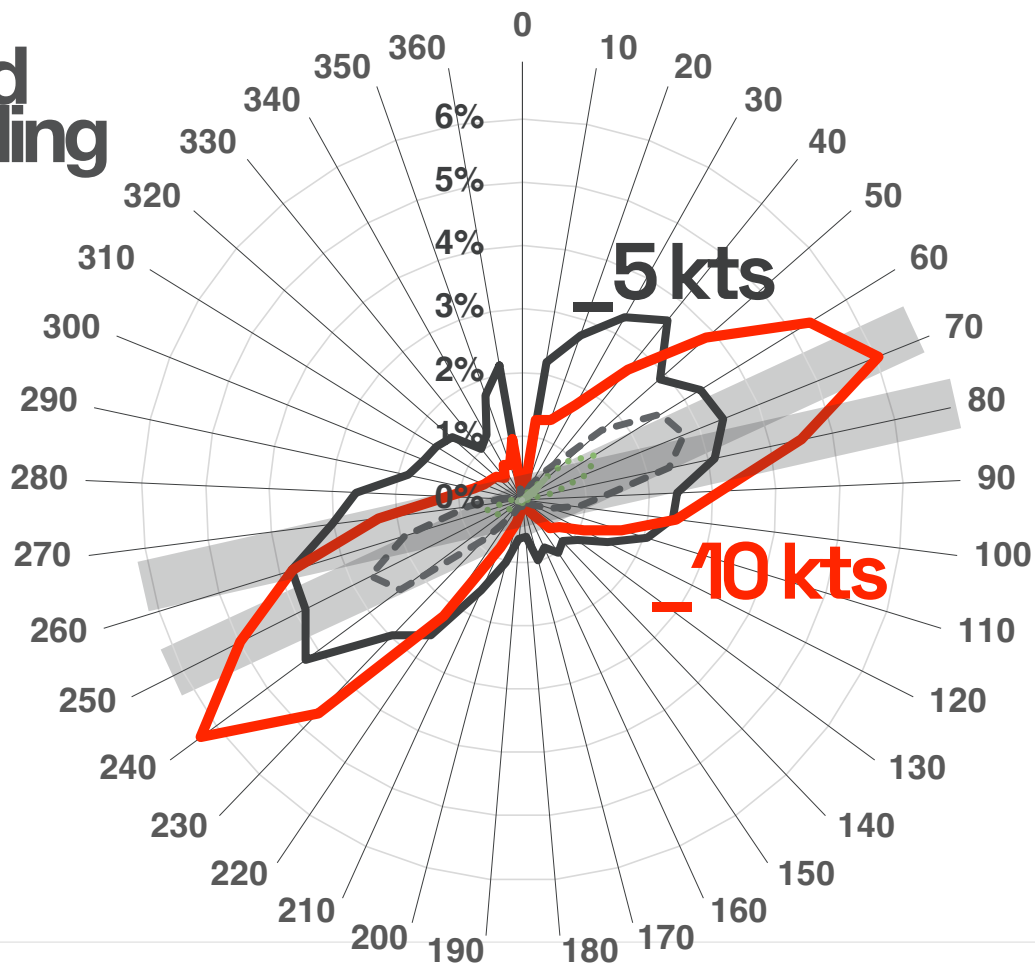
Throughout 2023 no major unavailability & downtime were reported, the traffic carried on seamlessly.



For Bucharest Baneasa-Aurel Vlaicu International Airport (LRBS), the second airport in BANC portfolio, 2023 marked the brief return of regular commercial operations.

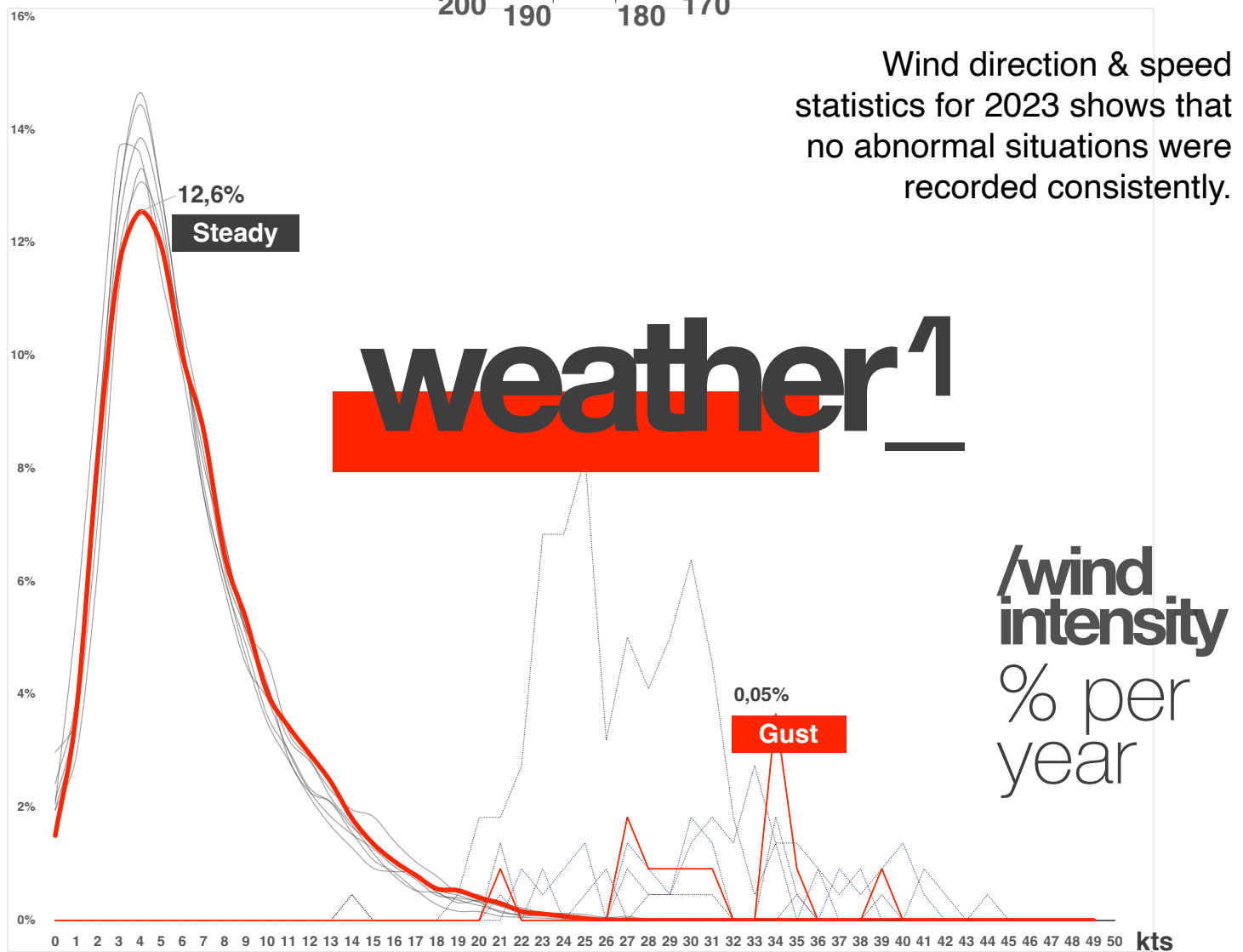


/wind
heading

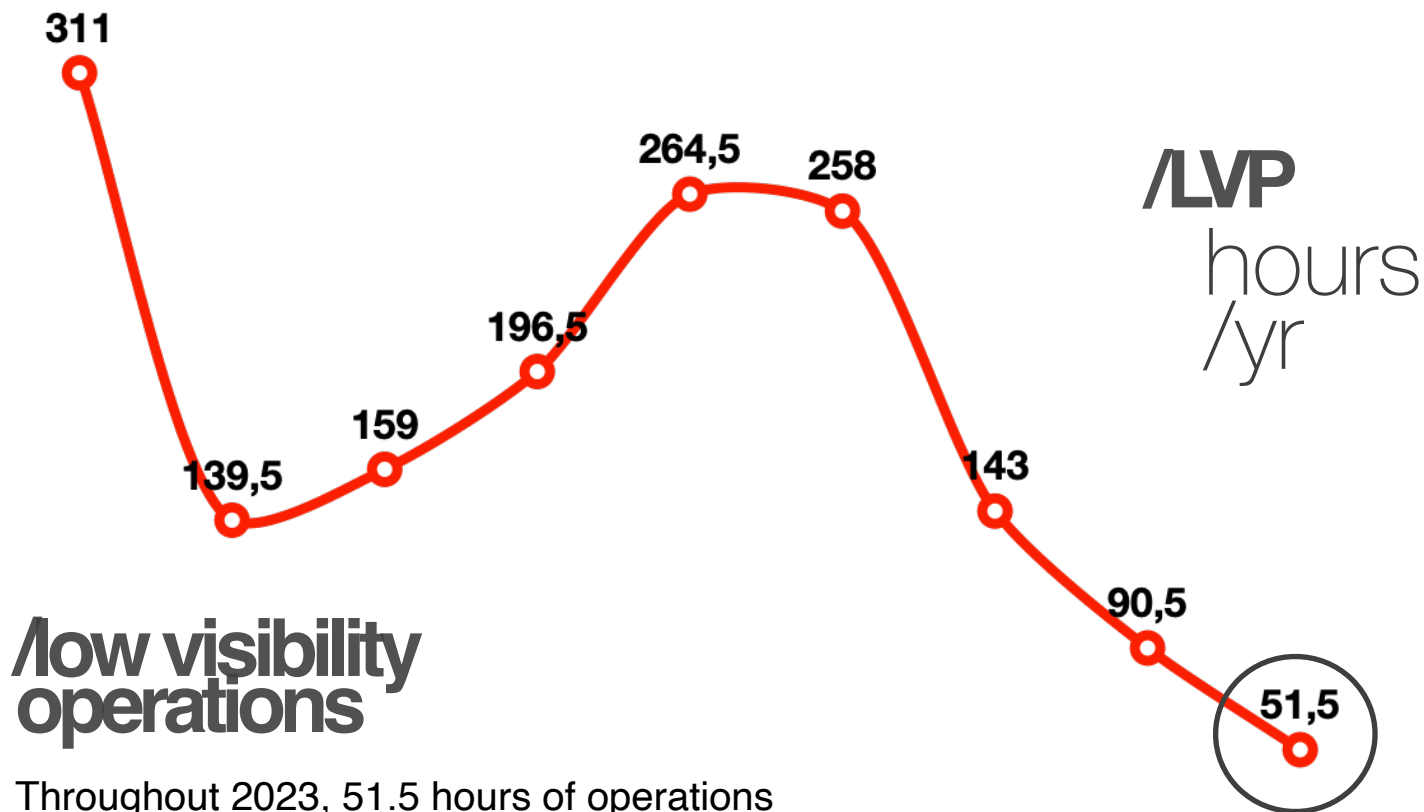


Wind direction & speed
statistics for 2023 shows that
no abnormal situations were
recorded consistently.

weather₁



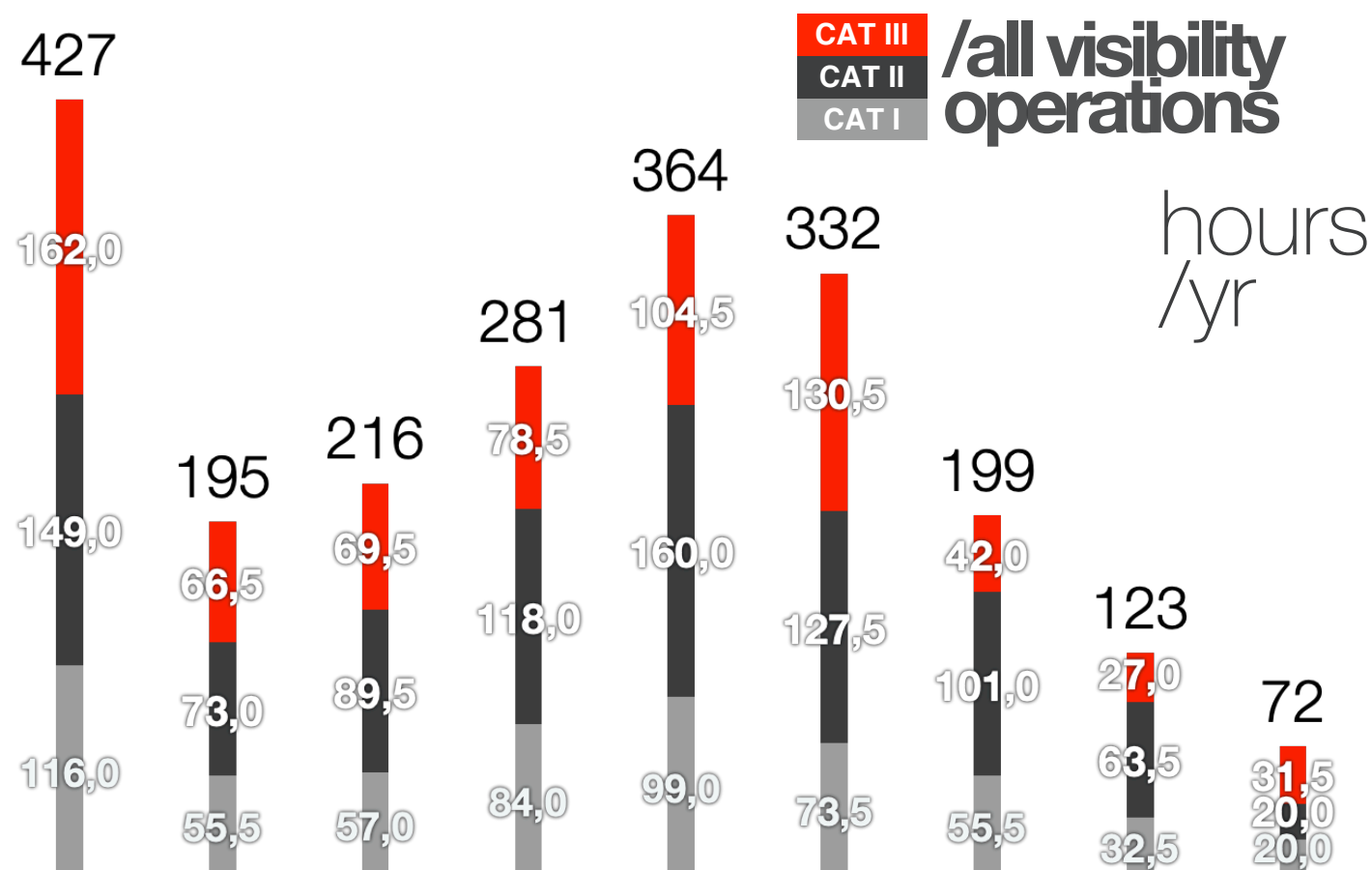
/wind
intensity
% per
year



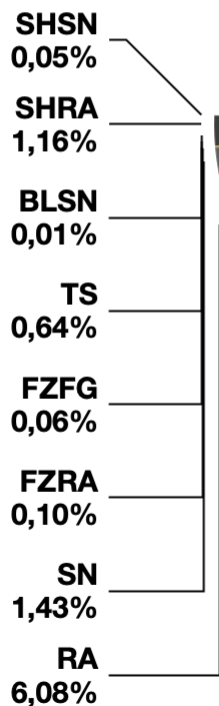
Low visibility operations

Throughout 2023, 51.5 hours of operations in low visibility conditions were reported, which is a minimum in the past 8 years.

2015 2016 2017 2018 2019 2020 2021 2022 2023



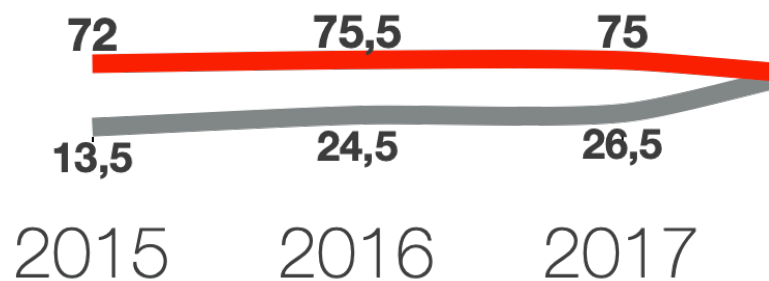
weather₂



2023

No precipitations
90,47%

Safety assesments that exceed 3 days must take into account meteorological hazards (strong wind). Moreover, assesments for November-April period must take into account low visibility aswell as adverse weather conditions.



/temperature

The average annual temperature for 2023 exceeds the last years range. Temperature data are factored in during safety risk analysis of movement surface works.

/average °C
temperature

12,2

11,8

11,7

12,3

12,8

12,9

11,8

12,7

13,5

2015

2016

2017

2018

2019

2020

2021

2022

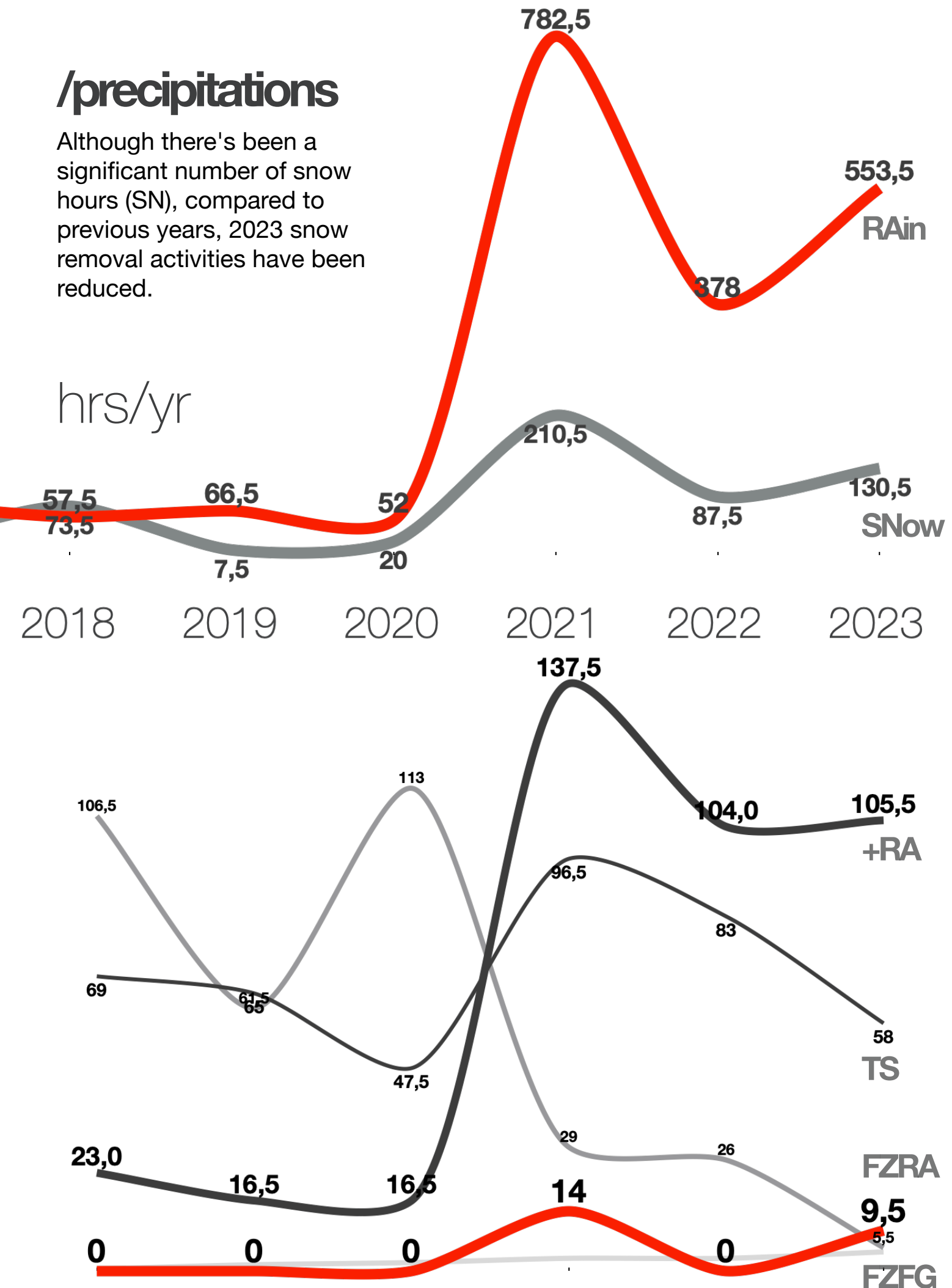
2023

13

/precipitations

Although there's been a significant number of snow hours (SN), compared to previous years, 2023 snow removal activities have been reduced.

hrs/yr



risk management & safety assurance_

Bucharest Airports operational risk management for both airports is conducted by the Safety Department through dedicated Safety Offices and SMS processes owners.

During 2023, risk assessments were made by our specialised team and risk level was kept acceptable/tolerable with specific control measures.

Safety department inspectors assess through direct observation during routine surveys of operation or following safety reporting the hazards present in our airports.

In the planning phase of the processes, line managers have to identify hazards in order to implement any action with safety relevance.



**/change
management**

5

**/work
permits**

37

**/risks
assessments**

20

**/safety
bulletins**

40

**/safety
investigations**

08

**/aeronautical
studies**

10

**/audits &
inspections**

500+

/vehicle inspection programme

As part of our effort to improve the safety level of all operations, we have implemented a set of requirements for vehicles entering operations area. These requirements take into account safety and environmental issues and are reviewed every 2 years.

safety programmes_

/RWY incursion prevention

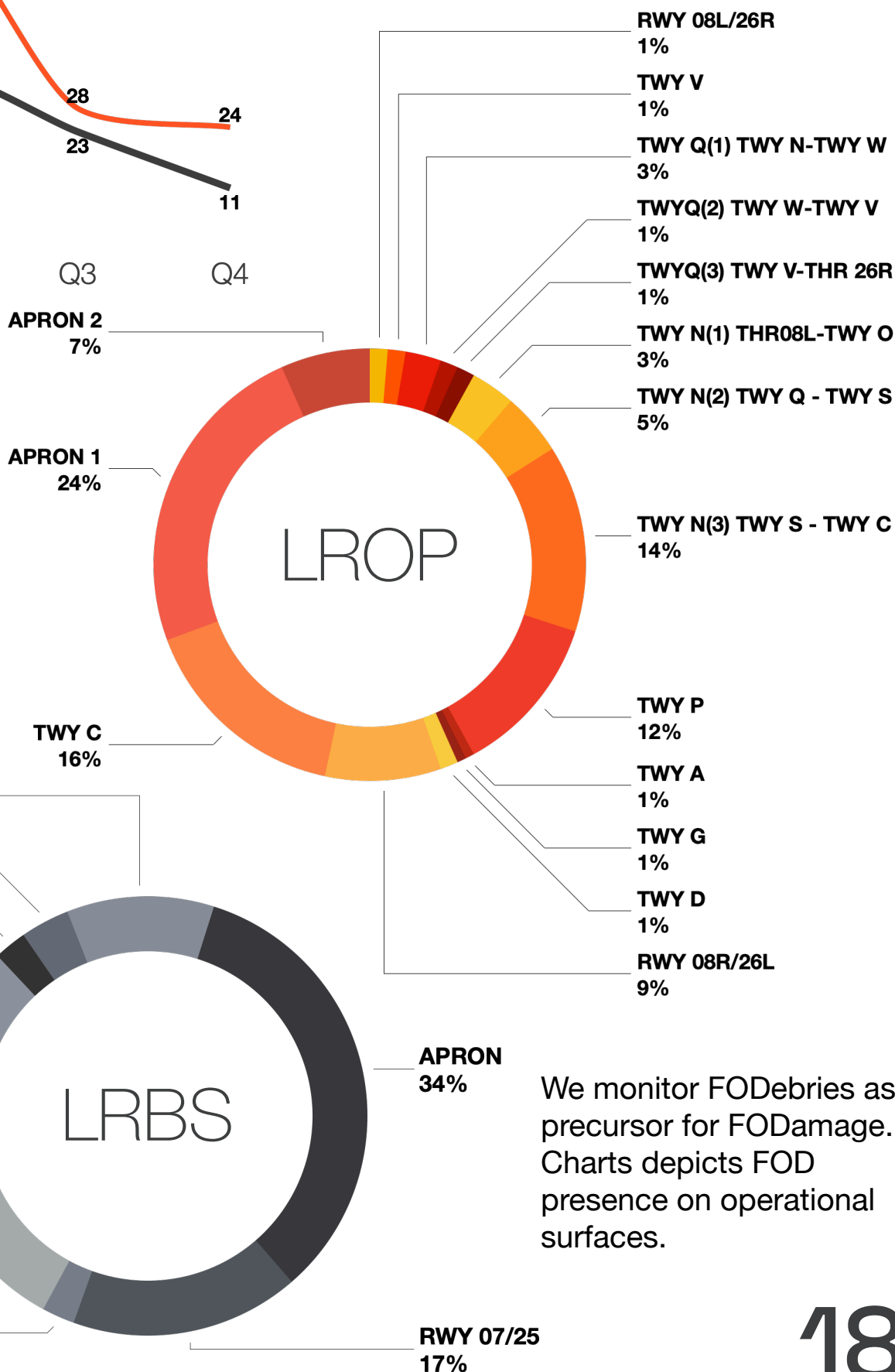
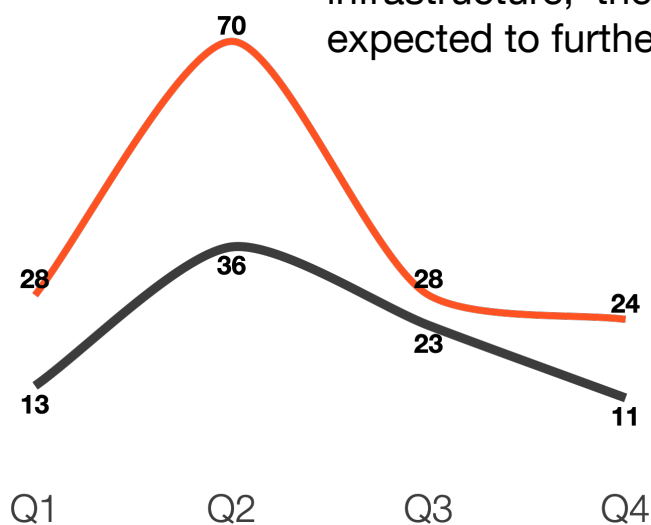
Inline with European and International regulations, we developed a local runway incursion prevention plan aimed at reducing the associated risks. SMGCS is also evaluated and constantly revised in order to assure the needed level of guidance and control.

/RWY excursion prevention

The risks associated with runway operations are considered critical by our SMS and dedicated programmes are enforced to assure acceptability/tolerability at any time.

/FOD prevention

FOD prevention programme is a useful tool to monitor the performance of our actions in this area. As we are upgrading the infrastructure, the level of FOD from surface related issues is expected to further decrease.



We monitor FODebries as precursor for FODamage. Charts depicts FOD presence on operational surfaces.

safety performance & Improvement_

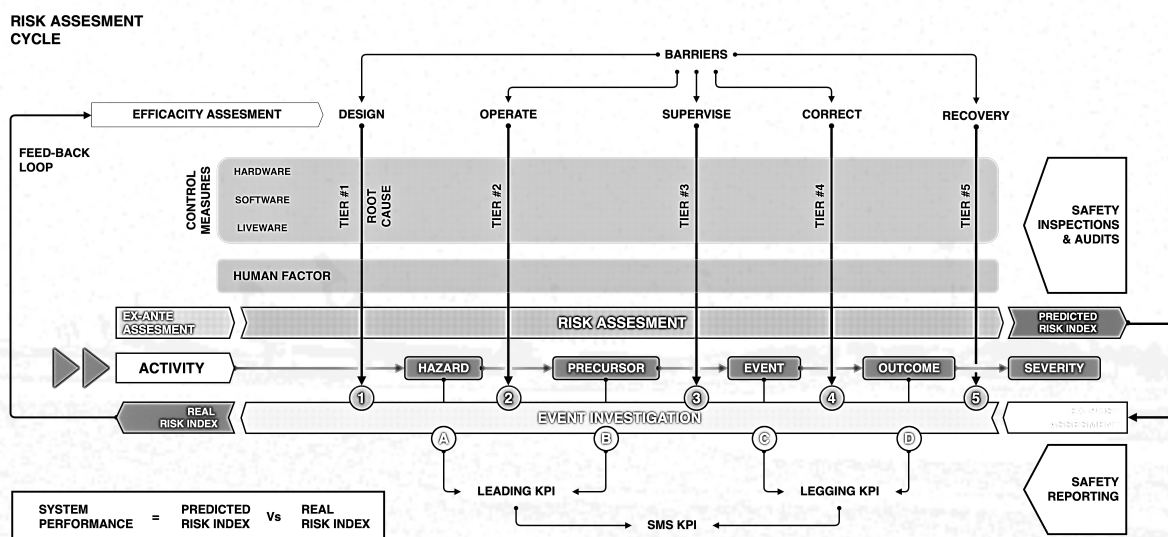
Inline with organisation policy and regulation, we consider the performance of our organisation in the safety area a first priority factor in achieving our goals.

2023 marked 5 years of operations according to our new certificate issued by Regulation 139/2014. For safety performance, this new paradigm assured a better organisational predictability in terms of processes and segregation from services provision, allowing us to focus on further improving the safety management system.

Our Safety Key Performance Indicators are selected according to National Safety Plan and our specific focus and are monitored monthly and reported quarterly.

/process management

Understanding that operational processes have the main impact on our safety level, we succeeded in coupling the safety KPI to every safety relevant process in our organisation. By doing that, we managed to have a better representation of safety performance at process level, rather than at organisation level. This approach will allow our line managers to better understand their own impact on safety level and the importance of managing safety early on, at planing phase of the intended activities .



/new Safety Management System

After nearly a decade of experience working with our SMS, we are confident that we can upgrade our system to incorporate the lessons learned over the years and to further tailor it to our organisation needs. In 2023 a new edition of our SMS Manual has been published containing a revised approach of our process functions and results. We strive to optimise the functionality of our activities and provide better services to our clients both internal and external.

cooperation_

/local runway safety team

A well established forum for discussions and debates regarding the safety of our operations, Local Runway Safety Teams regularly meets on both of our airports, assessing and evaluating different topics relevant to our goal.

/close cooperation group

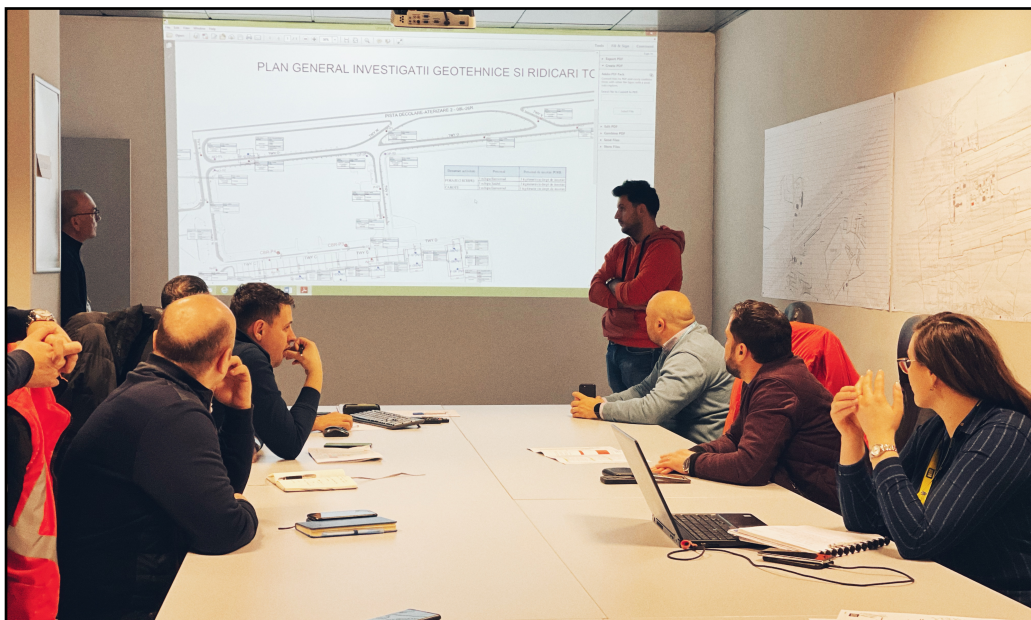
Understanding the magnitude of the works involved in the implementation of the compliance project, the safety department had the initiative to form a close cooperation group (grup de suport tehnic) to better manage the needed exchange of real-time informations regarding the progress of the project.

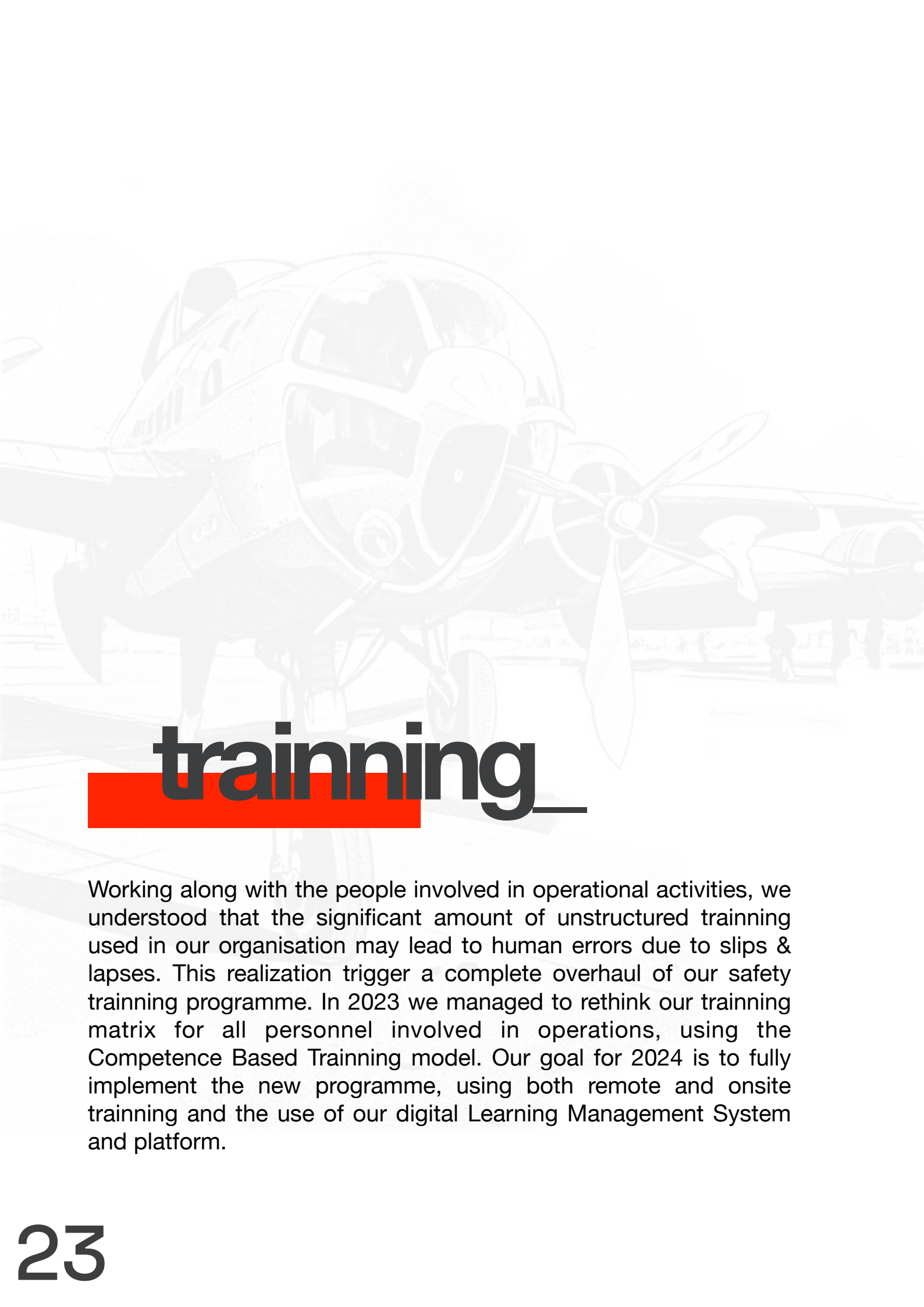
/ACI technical operations & safety group

Since 2023, Bucharest Airports is represented in ACI (Airport Council International) TOSC (Technical Operations Safety Committee). Being part of the airport community allow us to gain access to a broader knowledge database in order to better understand and handle the challenges ahead.

/faculty of aerospace engineering MoU

Bucharest Airports and Faculty of Aerospace Engineering close cooperation has been long established and in 2023 a new Memorandum of Understanding was signed in order to further advance our common initiatives. The faculty alumni are welcomed in our organisation and we want to be part of their education well before they became our colleagues.





training

Working along with the people involved in operational activities, we understood that the significant amount of unstructured training used in our organisation may lead to human errors due to slips & lapses. This realization trigger a complete overhaul of our safety training programme. In 2023 we managed to rethink our training matrix for all personnel involved in operations, using the Competence Based Training model. Our goal for 2024 is to fully implement the new programme, using both remote and onsite training and the use of our digital Learning Management System and platform.

The Henri Coandă annual safety performance review show that key performance indicators remain within the established range, but FOD presence indicator remain high.

FOD presence is closely connected to pavement condition and a major improvement is expected once the pavement rehabilitation process is final. Until maintenance upgrade works are completed, additional mitigation measures should compensate this area's performance shortage.

review_

/A/C accidents

ACC

00,00

/serious incidents

IG

00,00

LROP
OTPAHXH
LROP RAYD

/N/C accidents			
	ADR.AUTO	10,73	✓
/drone incidents			
	ADR.DRN	00,00	✓
/RWY incursions			
	RWS.RI	00,00	✓
/RWY excursions			
	RWS.RE	00,00	✓
/FOD presence			
	RWS.FOD	68,86	!
/birdstrike			
	RWS.BRD	42,03	✓
/wildlife			
	RWS.WLD	00,00	✓
/ground collision			
	GOP.GCL	00,00	✓
/damage			
	GOP.RMP	00,89	✓
/TWY incursions			
	GOP.TWI	00,00	✓

Although LRBS main KPI regarding accidents and serious incidents have been achieved, annual safety performance review shows that some indicators remain significant high.

The atypical configuration of TWY A holding point (parallel to runway) continues to trigger runway incursion incidents and efforts are being made to further enhance the awareness of crew regarding this safety issue.

Ageing paved surfaces will likely generate more FOD in the coming years so maintenance efforts should focus on this growing issue.

review

/A/C accidents

ACC

00,00

/serious incidents

IG

00,00

LRBS
BBUAVXH
LRBSRAYD

/N/C accidents			
	ADR.AUTO	01,20	⚠
/drone incidents			
	ADR.DRN	00,00	✓
/RWY incursions			
	RWS.RI	03,00	⚠
/RWY excursions			
	RWS.RE	00,00	✓
/FOD presence			
	RWS.FOD	08,30	⚠
/birdstrike			
	RWS.BRD	00,60	✓
/wildlife			
	RWS.WLD	00,00	✓
/ground collision			
	GOP.GCL	00,00	✓
/damage			
	GOP.RMP	00,00	✓
/TWY incursions			
	GOP.TWI	00,00	✓

awareness_

/multimedia campaign

To increase the awareness of the people involved in safety relevant processes and activities, we initiated a marketing programme for safety promotion through posters with information regarding our activities and key topics.

We grasp that in order to be fully part of it, people need to understand the process, therefore communicating our ideas and concepts is a critical part of our mission.

The campaign „Safety involves us”- (Siguranta ne priveste pe toti) will continue through various multimedia channel of communication and we are dedicating our efforts to convey our message.

ops SMS

/poster



planificare_1

evaluare de siguranță

studiu aeronautic

permis de lucru

managementul schimbării

analiza de risc

realizare_2

performanță

investigații de
siguranță

raportare evenimente

verificare_3

audit & inspecție

nomenclator
pericole

corectie_4

instruire

măsurii

comunicări

safety



safety

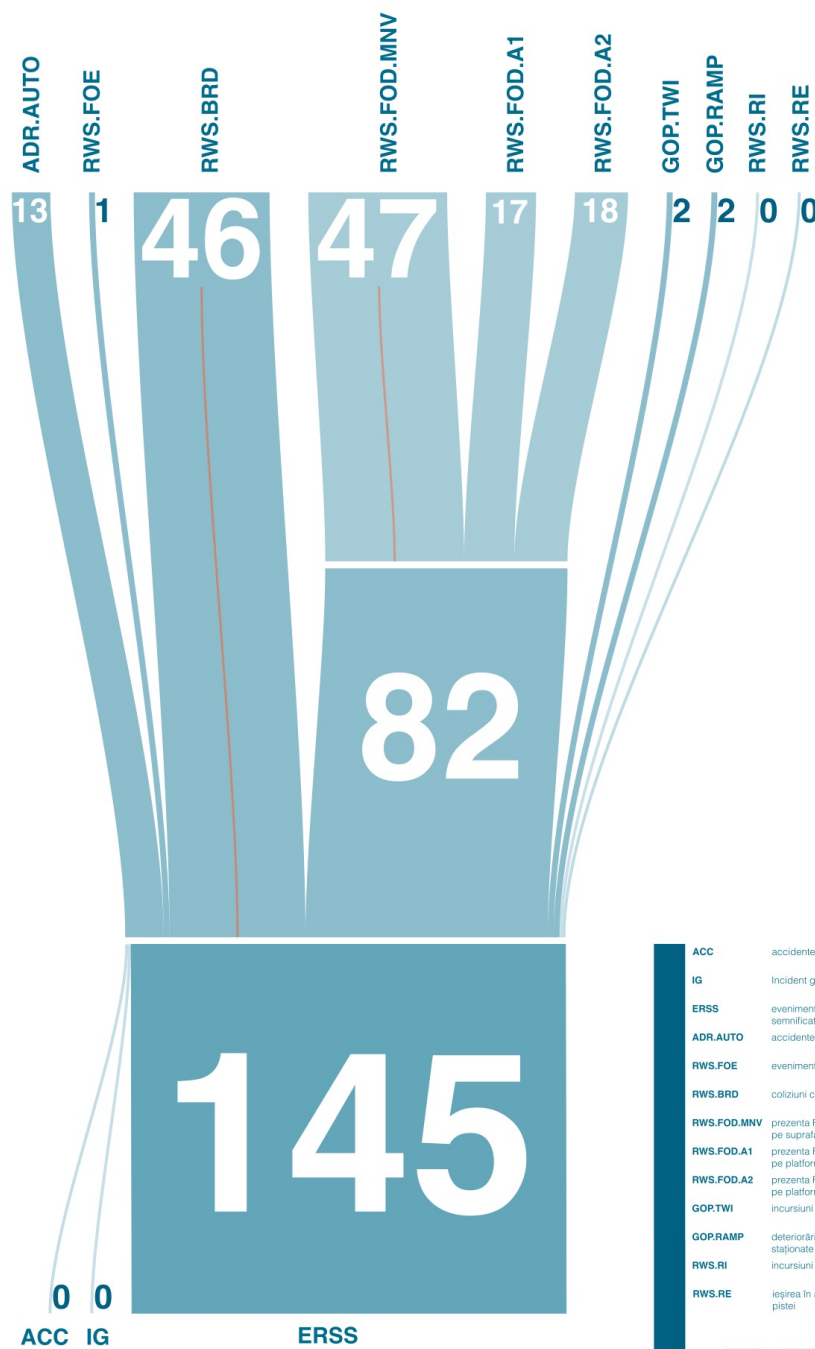
review





siguranța ne
privește pe toți

/poster



ACC	accidente aeronave
IG	Incident grav
ERSS	eveniment cu risc semnificativ de siguranță
ADR.AUTO	accidente auto
RWS.FOE	eveniment FOD (damage)
RWS.BRD	coliziuni cu păsări
RWS.FOD.MNV	prezența FOD (debris) pe suprafața de manevră
RWS.FOD.A1	prezența FOD (debris) pe platforma #1
RWS.FOD.A2	prezența FOD (debris) pe platforma #2
GOP.TWI	incursiuni la o cale de rulare
GOP.RAMP	deteriorări ale aeronavei staționate
RWS.RI	incursiuni la pista
RWS.RE	ieșirea în afara suprafeței pistei

safetykpi
2022



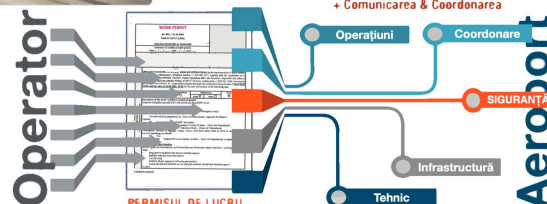
Operatiunea

Recuperarea unei aeronave imobilizate accidental

B767



SAFETY



Pericole

- +++ Deplasarea necontrolată a aeronavei
- ++ Incendiu
- + Comunicarea & Coordonarea

Faza #1 Pregătirea

- + Calculul centrului de greutate al aeronavei
- + Echilibrarea aeronavei prin îndepărtarea bagajelor
- + Stabilirea punctelor de ancorare



Faza #2 Stabilizarea

- + Stabilirea unui punct de susținere a fuselajului
- + Rotirea aeronavei pe cele două axe prin ridicarea din punctul de ancorare de pe plan
- + Stabilizarea poziției aeronavei



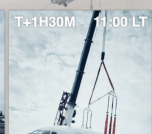
Faza #3 Deplasarea

- + Poziționarea trailerului sub plan
- + Formarea unui triciclu capabil să asigure deplasarea pe 2.5+ km
- + Deplasarea prin împingerea cu un remorcher specializat



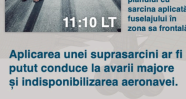
Pregătirea

- + Calculul centrului de greutate al aeronavei



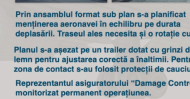
Stabilizarea

- + Rotirea aeronavei pe cele două axe prin ridicarea din punctul de ancorare de pe plan



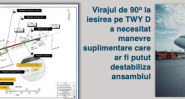
Deplasarea

- + Formarea unui triciclu capabil să asigure deplasarea pe 2.5+ km



Finalizarea

- + Degajarea pistei & poziționarea la stand



AUG 2020

factor uman



○ Influențe organizaționale

managementul resurselor
procesul decizional
cultura organizației

○ Supraveghere insuficientă

supraveghere inadecvată
planificarea inadecvată a sarcinii
eșecul de a corecta o problemă
responsabilizare insuficientă

○ Condiții favorizante

factori de mediu
starea lucrătorului
factori de personal

● Acțiunea riscantă

încălcări intenționate
greșeli

safety





internship_

In collaboration with the Faculty of Aerospace Engineering, Bucharest Airports through Safety Department is hosting students during summer intership programme. We are excited to be part of they journey and we seek to provide them with a full learning experience connected to our day-to-day activities and challenges.



Safety Department_

/Radu BONDAR

HEAD of LROP safety office

**LROP
OTPAHX
LROPAYD**

/Ionut LICURICI

chief investigator

/Constantin CIRSTOVEANU

risk assessments & work permits

/Ruxandra CAPOTA

change mng. & aeronautical info

/Cosmin NICULITA

audits & training

/Mircea ZAMFIR

inspection & a/d safeguarding

/Alexandru MARIN

aeronautical studies

/Mihai POP

safety reporting & performance

/Stefan MLADIN

vehicle authorisation programme

/Marius GHITA

wildlife programme monitoring

/Alina MURAT

safety programmes & training

/Cristian ALEXE
SAFETY MANAGER



siguranța ne
privește pe toți

/Mircea CIUCA

HEAD of LRBS safety
office

LRBS
BBUAVXH
LRBSRAYD

/Adi GAVRILA

safety specific
activities for LRBS

/Marius RUTA

safety specific
activities for LRBS

team_



outlook_

**/RWY
08L26R**

LROP
OTPA PXH
LROP RAYD

/completed

P1 Apron Extension

TWY FilletExtension

LIMA

SIERRA

MIKE

NOVEM

KILO

ECHO

JULIET

TWY - C2

TWY - C2

ALPHA

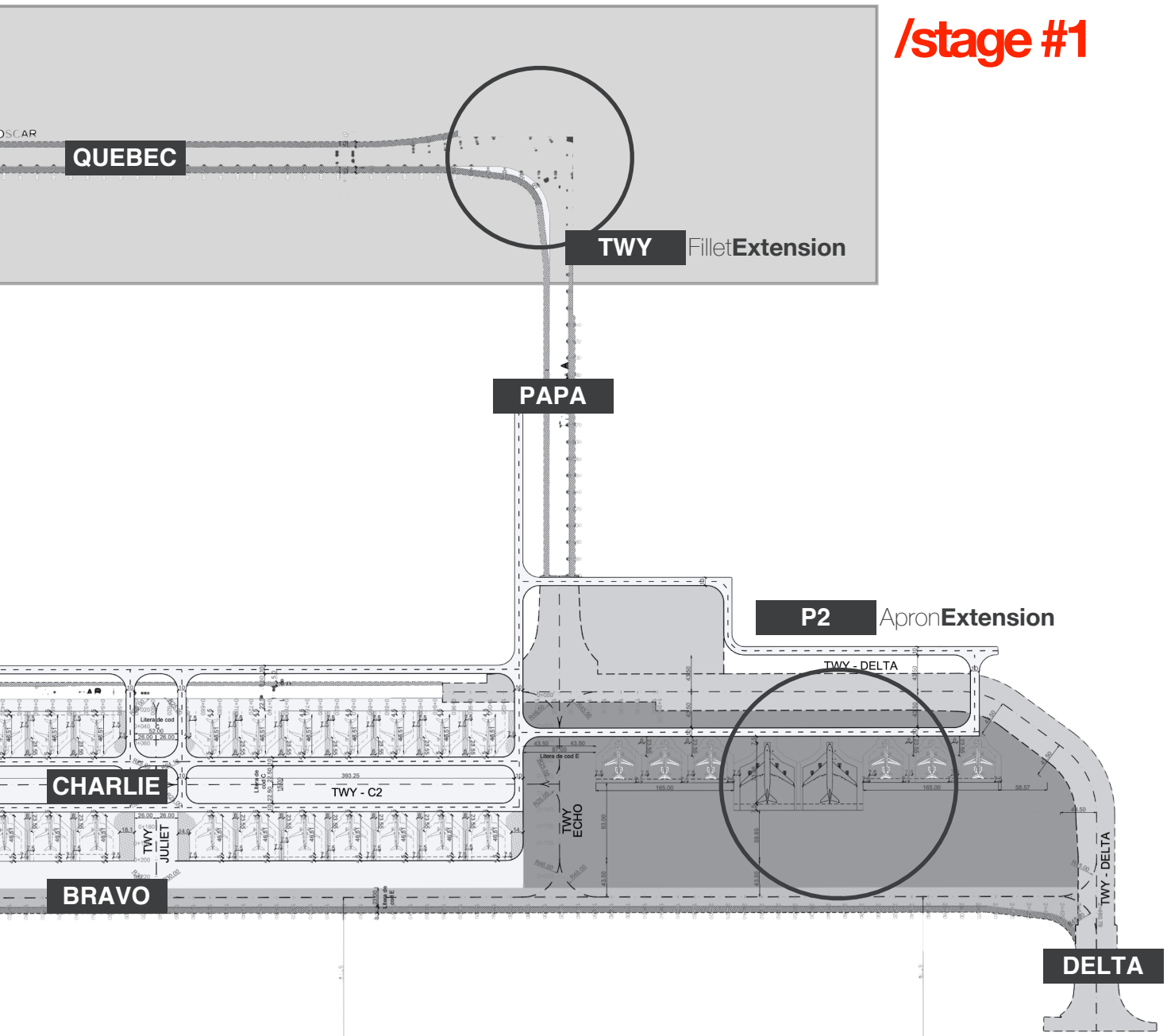
GOLF

**/RWY
08R26L**

/transition **4E**

Reg139/2014 compliance

The project objective is to ensure infrastructure full compliance with R139/2014 specification for code letter E aircraft and to develop operational capacity.



The period ahead will be marked by new safety challenges once the project will roll out over next stages of construction.

The work in progress will require further closure of different operational areas for construction sites and will create additional strains and pressure over the rest of the system. The risk assessments will play a key role in the success of the project and we are keen to continue to be a part of this effort.

projects -2024+

/implementation of **Safety Intelligence** concept

/ **SMS** procedures updates

/support for **ACDM** implementation & APOC development

/R139/2014 compliance & closing **DAAD**

/complete overhaul of taxiways identification system

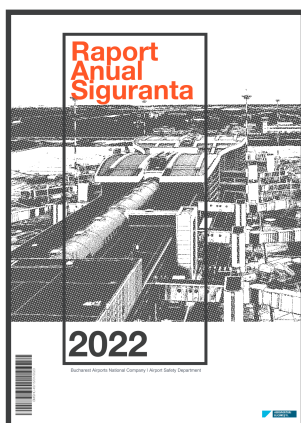
summary_

SMS performance evaluation proves that the planned level of safety was achieved throughout 2023 and the risk remained within acceptable/ tolerable range.

The **Safety Management System's** main goal is to develop new preventive measures, aiming for an increased level of safety. Our actions during 2023 were inline with these values and also our accomplishments.

We think that through technology and specialised Human Resources we can provide a better service to both passengers and airlines.





2024



**siguranța ne
privește pe toți**



ANNUAL SAFETY REPORT 2023

Bucharest Airports National Company

Safety Department

HC Safety Office | AV Safety Office

+40 21 204.10.00 | safety@cnab.ro | www.bucharestairports.ro



This report has been 100% produced within Safety Department