



INTERNATIONAL CIVIL AVIATION ORGANIZATION
A United Nations Specialized Agency

A-CDM

A SUCCESS CASE OF COLLABORATION GRU AIRPORT & GOL

Capt Miguel Dau - COO

GRU AIRPORT AEROPORTO
INTERNACIONAL
DE SÃO PAULO



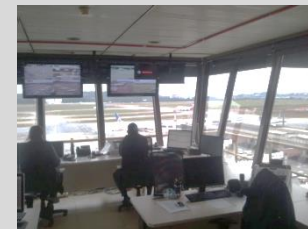
OLD STRUCTURE (CGA)- INFRAERO

AIRPORT MANAGEMENT CENTER “CENTRO DE GERENCIAMENTO AEROPORTUÁRIA”

The INFRAERO implemented the Airport Management Center – “CENTRO DE GERENCIAMENTO AEROPORTUÁRIA (CGA)”
This Center was a initial conception of ACDM, focused in integration between all stakeholders, basically in:

- Boarding Passenger
- Arrival passenger

- The main areas were segregated and physically separated.
- Operating system were not integrated and unified. A lot of rework and time was needed.
- Limitation of the infrastructure.

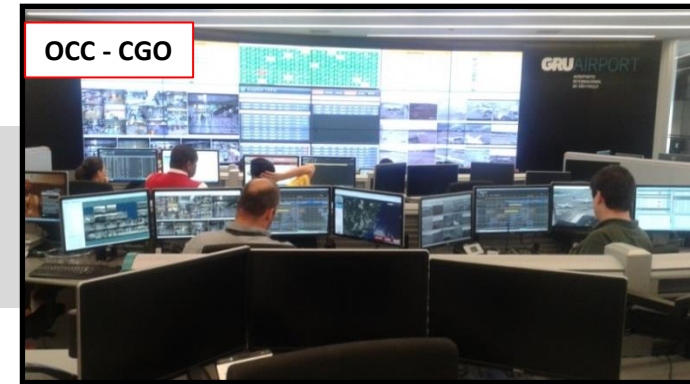


OPERATIONAL CONTROL CENTER

"CENTRO DE CONTROLE OPERACIONAL"

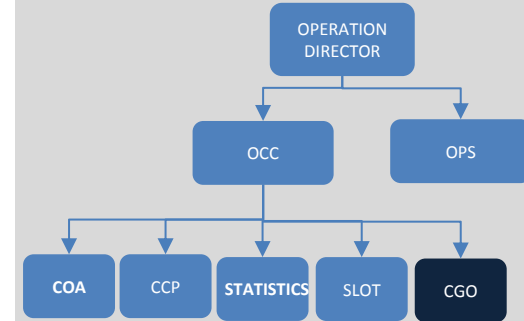
MAY OF 2014

THE GRU AIRPORT OPENS THE NEW OPERATIONAL CONTROL CENTER



OCC - CGO

NEW STRUCTURE

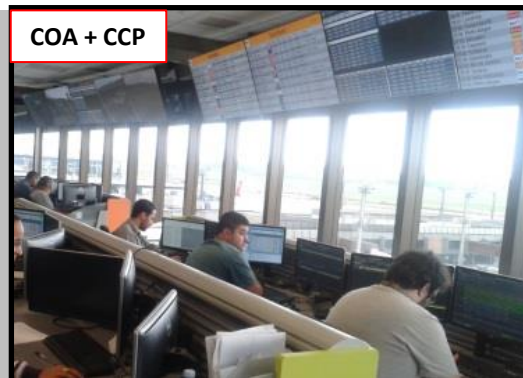


FOR THE CONCEPT OF ACMD:

- 1 Organizational restructuring.
- 2 New technology investments
- 3 New Buildings investments
- 4 New procedures
- 5 Improve the integration between sector and add more groups to collaborate.
- 6 Concept deployment of **C5I** (Command, Control, Communications, Computer, Collaborative, Intelligence)



EMERGENCY CENTER



COA + CCP



CRISIS ROOM



CCI - SECURITY INTELLIGENCE

SECURITY

OPERATIONAL CONTROL CENTER

CENTRO DE CONTROLE OPERACIONAL



The Operational Control Center is responsible for coordinate and monitoring, in a collaborative form, all operations of arrival and departure, from the park position, boarding gates, baggage conveyors, customs line flow and transports, to improve operation flow.

- 1) Daily management of KPI of the airport operations
- 2) Integration and share information, improving the relationship with all stakeholders (Airline Company's, Ground handlers, Maintenance, Federal Police, Customs)
- 3) Operational Planning and optimize the operation
- 4) Management of the utilization of infrastructure (E.g. Aircraft stand/ gate management)



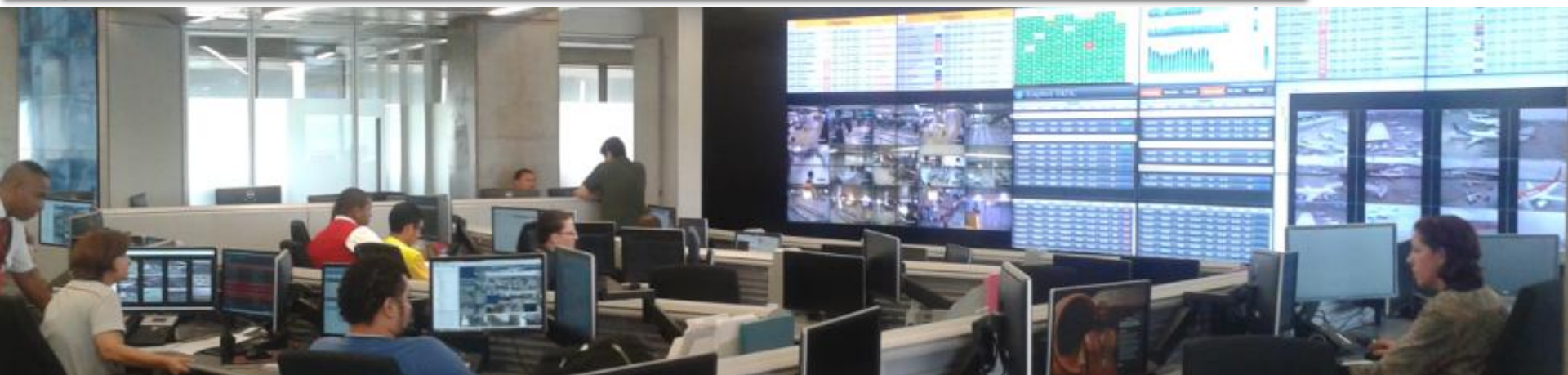
AIRPORT MANAGEMENT SYSTEM

The AMS provides system integration, real-time operational control, increased agility, and enhanced collaboration between stakeholders.



ZEUS/ACDM

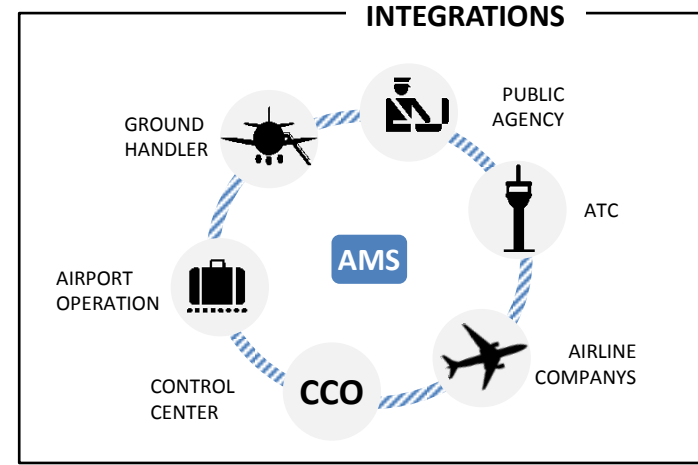
A system that helps to keep staff at all levels informed and manage the daily operation, sharing information.



ACDM

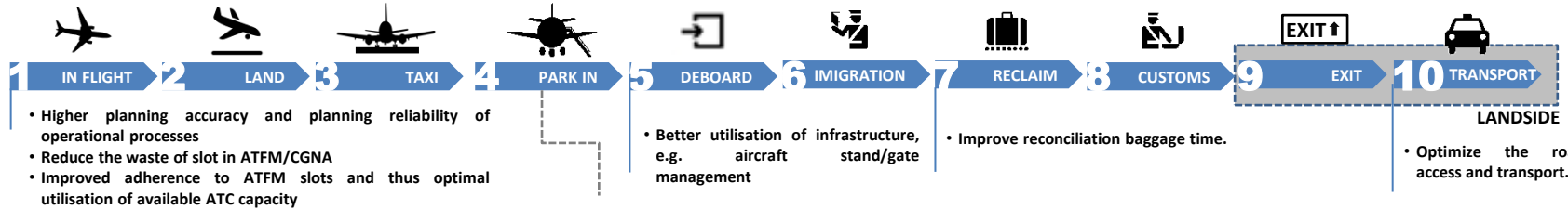
AIRPORT COLLABORATIVE DECISION MAKING

ACDM is a concept created to develop a collaborative decision process on airport operations. The concept is based in the integration and collaboration of all stakeholders, (GRU AIRPORT, Airline Company's, Ground Handlers, Public Agency and Air Traffic Control) sharing information in real time.

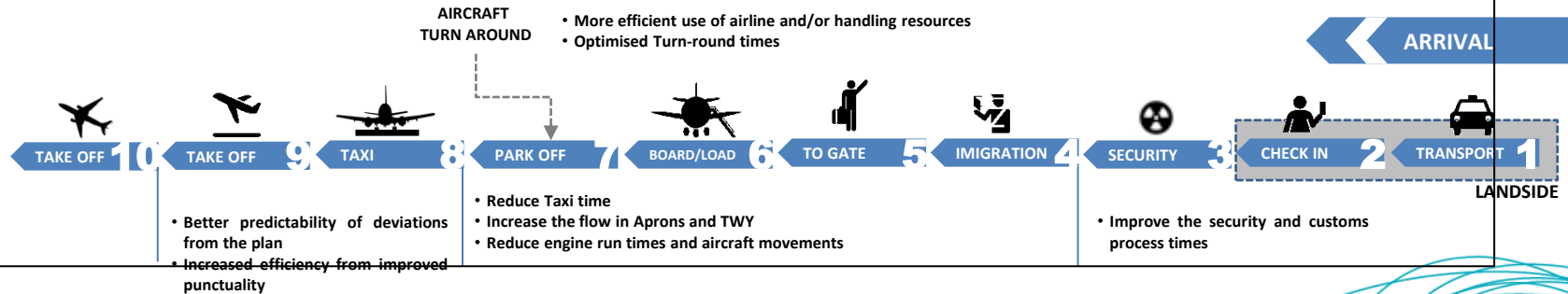


COMMON GOALS

BOARDING



MELHORIA NOS PROCESSOS



NEWS

IMPROVEMENTS - ON TIME PERFORMANCE



Table 3: Top 20 Large Airports by OTP

2014

Rank	Coverage	Name	Airline Code	Average OTP 2014
1	85.6%	Munich	MUC	89.0%
2	83.9%	Tokyo Haneda	HND	87.9%
3	91.3%	Seattle	SEA	86.2%
4	93.1%	Singapore Changi	SIN	85.3%
5	87.7%	Minneapolis	MSP	84.5%
6	98.1%	Amsterdam	AMS	84.4%
7	96.6%	Frankfurt	FRA	84.4%
8	92.7%	Sydney	SYD	84.4%
9	93.1%	Miami	MIA	83.2%
10	96.1%	Charlotte	CLT	83.1%
11	82.4%	Melbourne	MEL	82.9%
12	91.3%	Atlanta	ATL	82.4%
13	93.0%	Barcelona	BCN	82.4%
14	89.2%	Dubai	DXB	82.3%
15	82.6%	Los Angeles	LAX	81.1%
16	90.4%	Toronto	YYZ	79.6%
17	87.9%	Rome Fiumicino	FCO	79.1%
18	88.8%	Kuala Lumpur	KUL	79.1%
19	82.2%	Seoul Incheon	ICN	78.8%
20	94.9%	Houston	IAH	78.8%



OAG reveals global on-time performance results 2015

Benchmarking can bring positive change to industry, says OAG

Rank	Coverage	Name	Airport Code	Average OTP 2015
1	84.9%	Tokyo Haneda	HND	91.25%
2	94.3%	Munich	MUC	87.71%
3	92.5%	São Paulo Guarulhos	GRU	87.47%
4	97.3%	Minneapolis	MSP	85.27%
5	95.2%	Sydney	SYD	85.20%
6	84.2%	Melbourne	MEL	85.02%
7	93.3%	Singapore Changi	SIN	84.75%
8	98.5%	Atlanta	ATL	84.38%
9	96.4%	Frankfurt	FRA	84.12%
10	98.1%	Seattle	SEA	83.56%
11	96.8%	Phoenix	PHX	83.53%
12	94.4%	Madrid	MAD	82.62%
13	98.3%	Charlotte	CLT	81.43%
14	93.2%	Las Vegas	LAS	81.40%
15	98.0%	Amsterdam	AMS	81.15%
16	90.1%	Orlando	MCO	80.79%
17	92.7%	Boston	BOS	80.68%
18	97.3%	Houston	IAH	80.10%
19	93.0%	Miami	MIA	80.08%
20	95.8%	Dallas/Fort Worth	DFW	79.89%

*GRU wasn't in the list



The world's most punctual airports and airlines are ...

After Tokyo Haneda, the **most punctual large airports** are in Munich, Germany (87.71%), Sao Paulo Guarulhos, Brazil (87.47%), Minneapolis (85.27%), Sydney (85.2%), Melbourne, Australia (85.02%), Singapore Changi (84.75%), Atlanta (84.38%), Frankfurt, Germany (84.12%) and Seattle (83.56%).



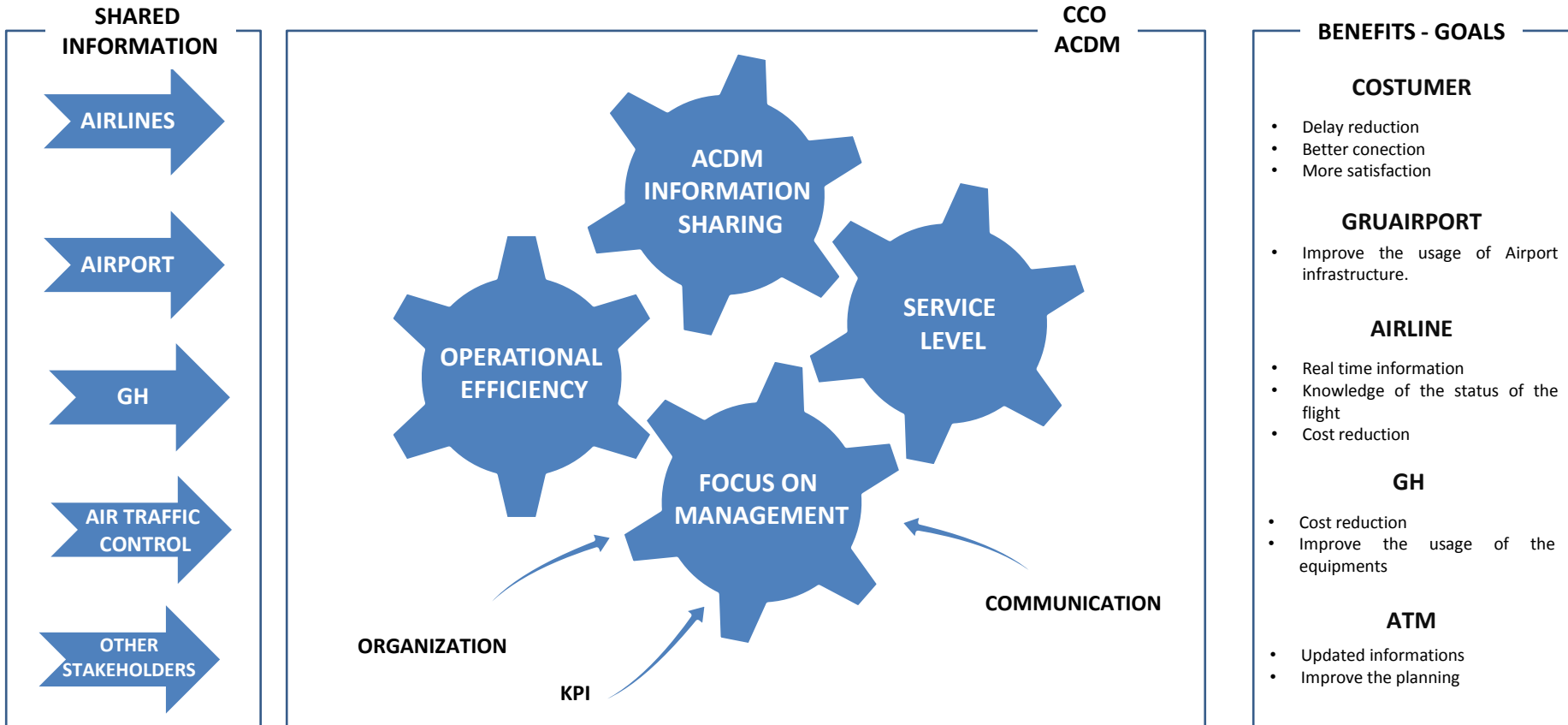
AEROPORTO DE GUARULHOS É O SEGUNDO MAIS PONTUAL DO MUNDO, MOSTRA LEVANTAMENTO

O aeroporto teve uma taxa de pontualidade de 88% no mês de agosto

2nd better OTP in the world (88%)

HOW GRU AIRPORT SEE THE ACDM?

A QUICK VIEW OF WHAT GRU AIRPORT ARE WAITING FOR



WHAT GRU ARE DOING?

IMPLANTATION OF ACDM IN GRU AIRPORT

1 CREATION OF WORK GROUPS WITH AIRLINES

- Creation of Work Groups with airlines
- Introduction of ACDM Concept
- Present the goals of the ACDM
- Regular meetings, analysing the evolution of KPI
- Be present in the CCO, collaborating with information and data. NEED PLEOPLE THAT CAN DECIDE.



GOL is the first Airline to has a Work Group.

AIRLINES THAT ALREADY IN CCO:

DOMESTIC AIRLINES

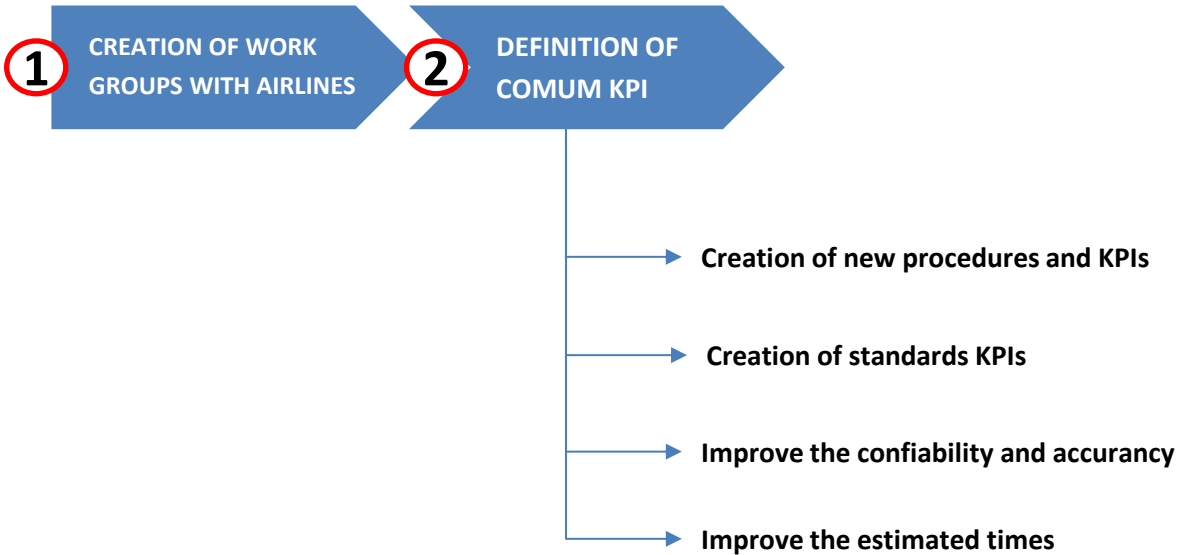


INTERNATIONAL AIRLINES



WHAT GRU ARE DOING?

IMPLANTATION OF ACDM IN GRU AIRPORT



EXAMPLE - KEY PERFORMANCE INDICATOR

ON TIME PERFORMANCE

TAXI IN TIME

TAXI IN TIME

RECONCILIATION BAGGAGE TIME

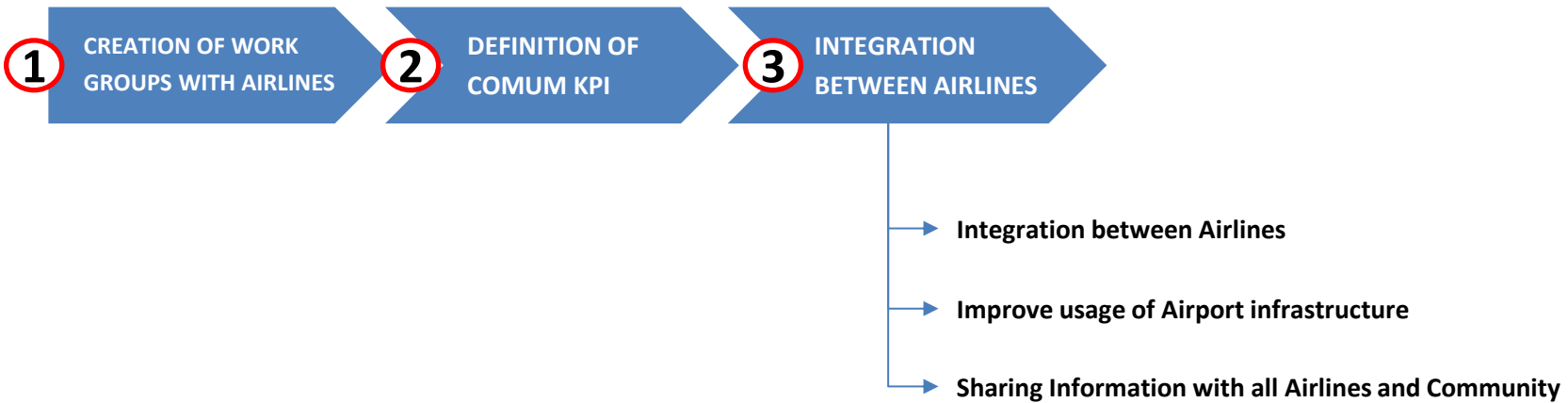
% OF USAGE BRIDGE

TAXI OUT TIME

TURNAROUND TIME

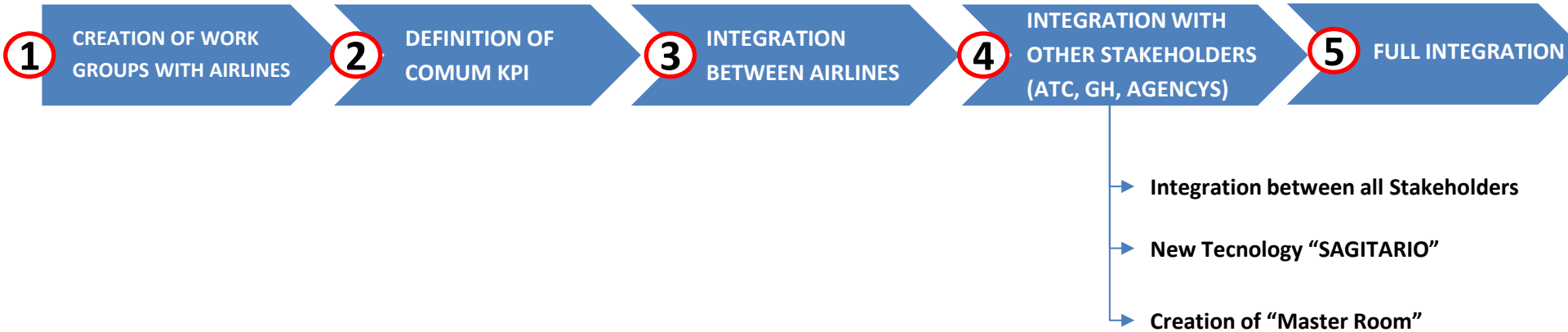
WHAT GRU ARE DOING?

IMPLANTATION OF ACDM IN GRU AIRPORT

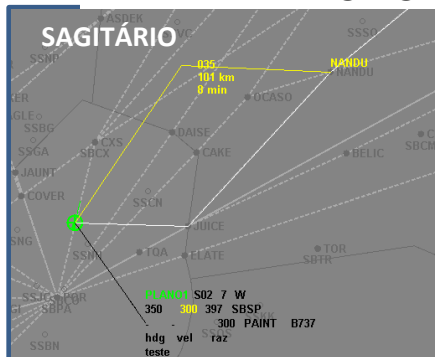


WHAT GRU ARE DOING?

IMPLANTATION OF ACDM IN GRU AIRPORT



IMPLEMENTATION OF NEW TECNOLOGY



- After start the conception of ACDM in the ground operation, GRU aims to improve Air Traffic operations, creating interactions with ATC and others involved.
- DECEA approved GRU to install the SAGITARIO, providing the REAL TIME operation in TERMINAL SP.

“SAGITARIO, an acronym in Portuguese for “Advanced Air Traffic Information and Operational Awareness and Reports Management System” provides to the air traffic controllers a solution that incorporates the operational field requirements and industry best practices”

OBRIGADO

GRACIAS

THANK YOU

GOL - THE FIRST EXPERIENCE

Capt MIGUEL DAU

Operations Director/COO
miguel.dau@gru.com.br

ACDM GOL & GRU Airport



Capt Sergio Quito - COO



GRUAIRPORT AEROPORTO
INTERNACIONAL
DE SÃO PAULO

GOL
Linhas aéreas inteligentes

ACDM - GOL & GRU AIRPORT



ACDM

Collaborative decision process among Airline, Airport and other stakeholder, e.g.: ramp handling.



GOALS

Improvement of operational efficiency, contributing for better planning and rational use of the Airline and Airport resources.



KPIs

Discussion of Airport and Airline KPIs and action plans



PASSENGER EXPERIENCE

Define and implement processes and flows to improve passenger experience.



7 steering committees

21 working meetings

Meetings also include our partners:



ACDM involves GOL and GRU Airport top Leadership

ACDM



Airport
Collaborative
Decision
Making Process

Steering Committee	
GOL	GRU AIRPORT
<ul style="list-style-type: none"> Sergio Quito Randall Aguero R. Gesse 	<ul style="list-style-type: none"> Miguel Dau Montano Wilson

Responsibilities

Sets goals, objectives and general guidelines
Approves new projects
Approves implementation of projects

Frequency of meetings

Montly

Working Groups	
GOL	GRU AIRPORT
<ul style="list-style-type: none"> Andrei Aildo Mariana Ana Cristina 	<ul style="list-style-type: none"> Vilma César Marisa Carlos

Responsibilities

Submits proposals for continuous improvement projects
Project execution and follow up

Frequency of meetings

Every 2 weeks





KPIs	
GOL	GRU AIRPORT
<ul style="list-style-type: none"> Andrei 	<ul style="list-style-type: none"> César





PMO	
GOL	GRU AIRPORT
<ul style="list-style-type: none"> Andrei 	<ul style="list-style-type: none"> César

Improvement Projects	
GOL	GRU AIRPORT
<ul style="list-style-type: none"> Mariana Aildo Camila 	<ul style="list-style-type: none"> Marisa César Diego

KPIs to follow up GOL & GRU AIRPORT

Category	KPI	Responsible
 <p>1 OTP</p>	OTP Arrival Dom - Inter 15'	GRU AIRPORT
	OTP Departure - 0' Dom	GOL
	OTP Departure - Dom / Inter 15'	GRU AIRPORT
	Top 5 Delays	GOL
	Infrastructure Delays 0'	GOL
	Taxi in/ Taxi out	GRU AIRPORT
	Air Traffic Delays 0'	GOL
 <p>2 Infrastructure</p>	% Jetbridge and Hardstand Flights Dom/Int	GRU AIRPORT
	% Gate change - Dom/Int	GRU AIRPORT

KPIs to follow up GOL & GRU AIRPORT

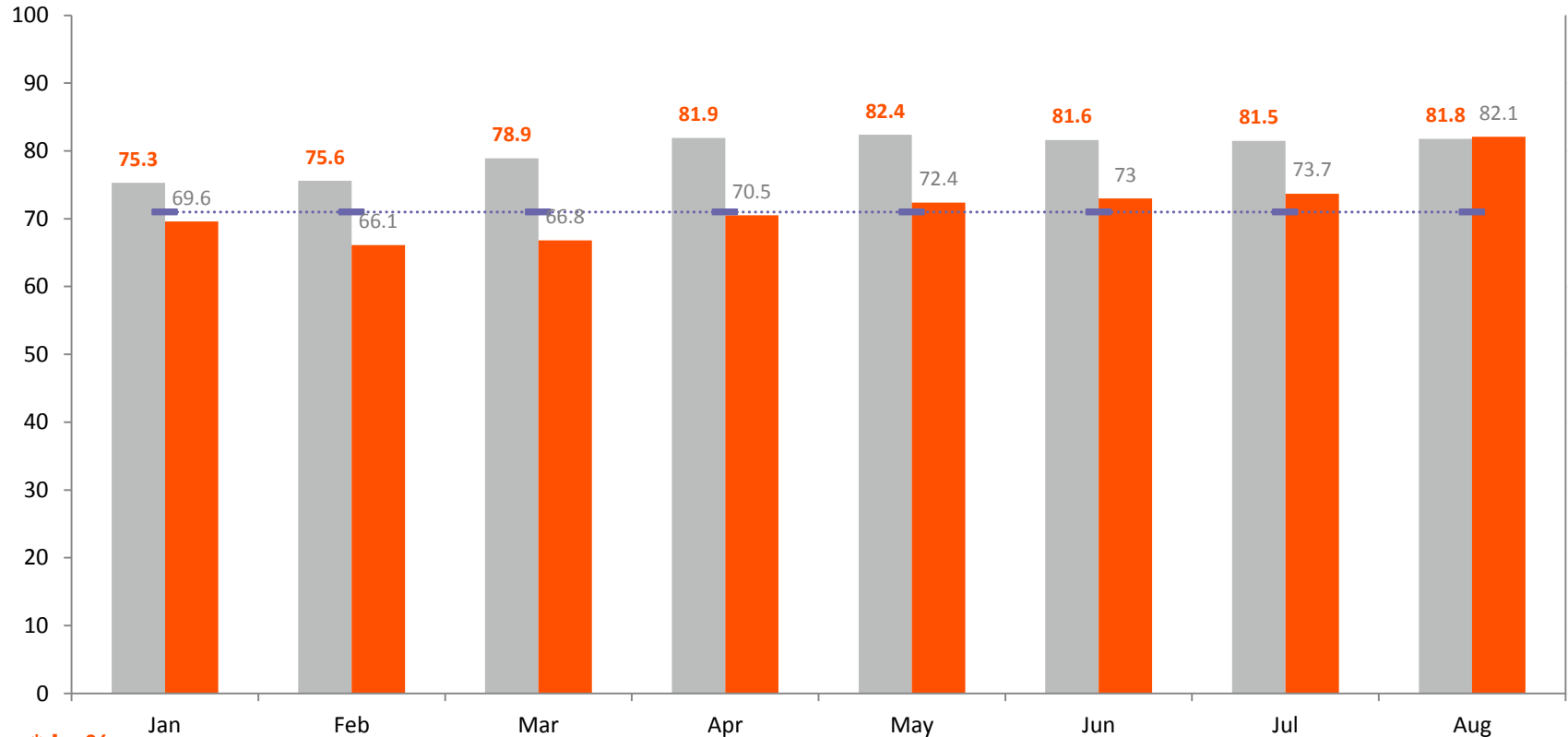
Category	KPI	Responsible
 <p>3</p> <p>Connectivity</p>	Load Factor & Connectivity	GOL
 <p>4</p> <p>Baggage</p>	Mishandled Bags	GOL
	Damaged Bags	GOL
	Baggage Claim Reports – Dom/Int.	GRU AIRPORT
 <p>5</p> <p>Passenger Experience</p>	Service Channels	GOL
	Satisfaction Research - Gol	GOL
	Satisfaction Research FIPE – GRU Airport	GRU AIRPORT
 <p>6</p> <p>Safety</p>	Bird Strike	GRU AIRPORT

KPIs

% Jet Bridges Flights – Domestic



Domestic Flights operated in Jet Bridges



* in %

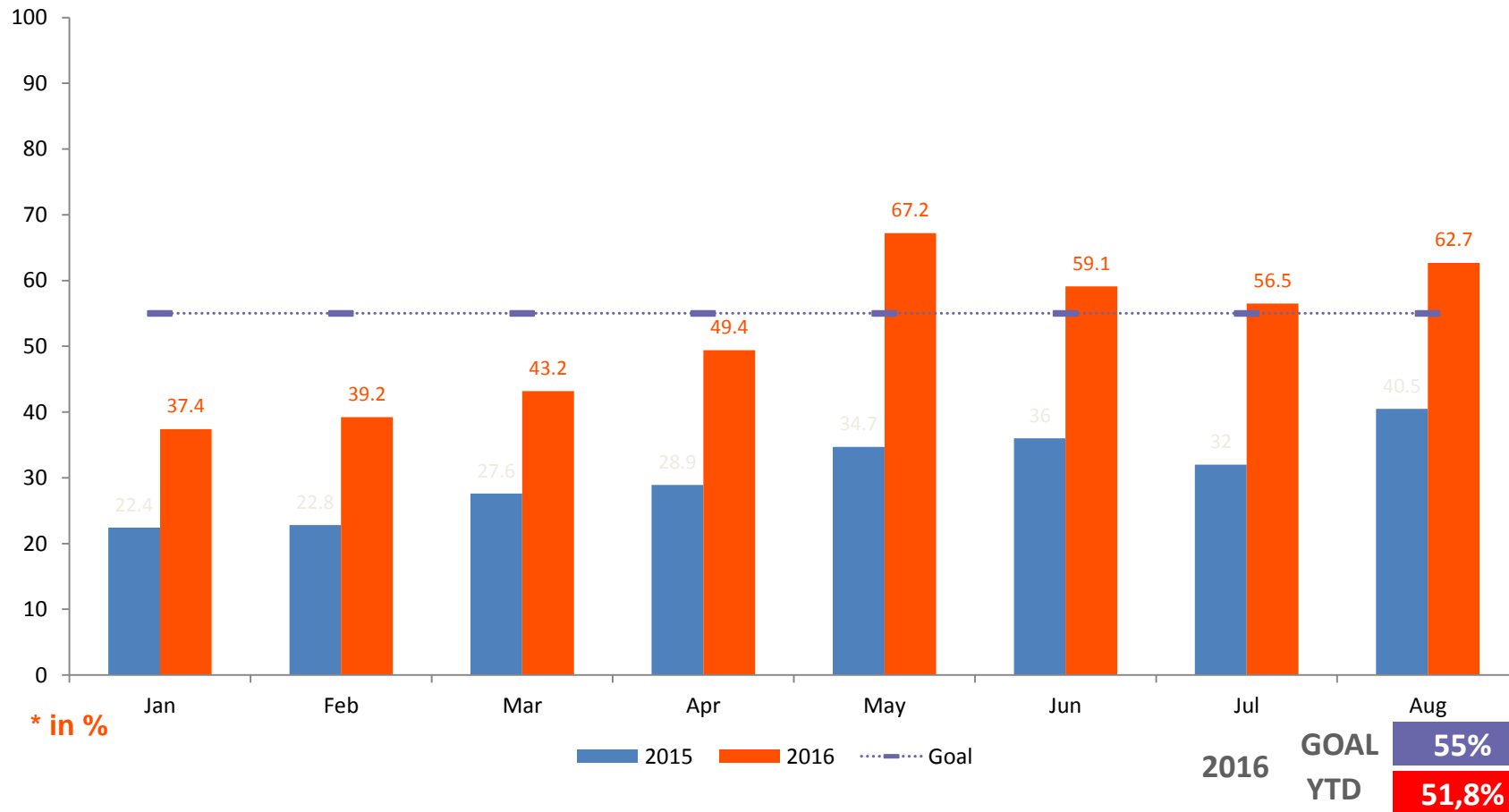
■ 2015 ■ 2016 Goal

2016	GOAL	71%
	YTD	71.7%

% Jet Bridges Flights – International



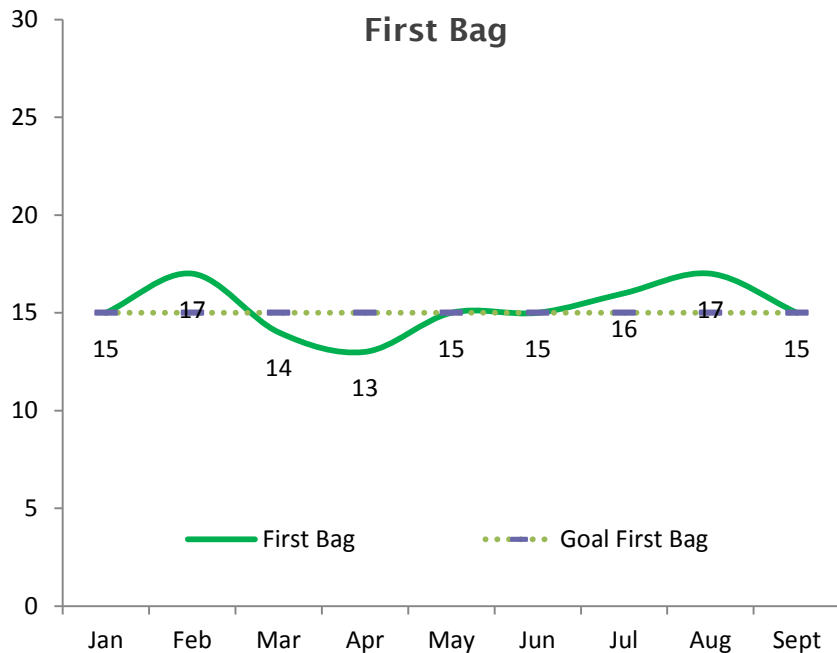
International Flights operated in Jet Bridges



Baggage Claim - Domestic

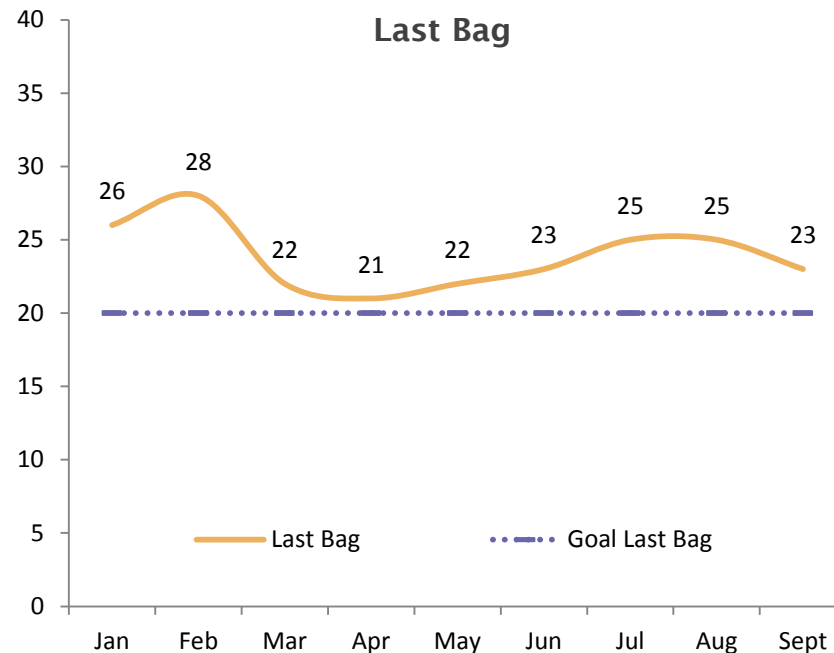


Baggage Claim - Domestic Flights



* in Minutes

2016	GOAL	15'
	YTD	15'



* in Minutes

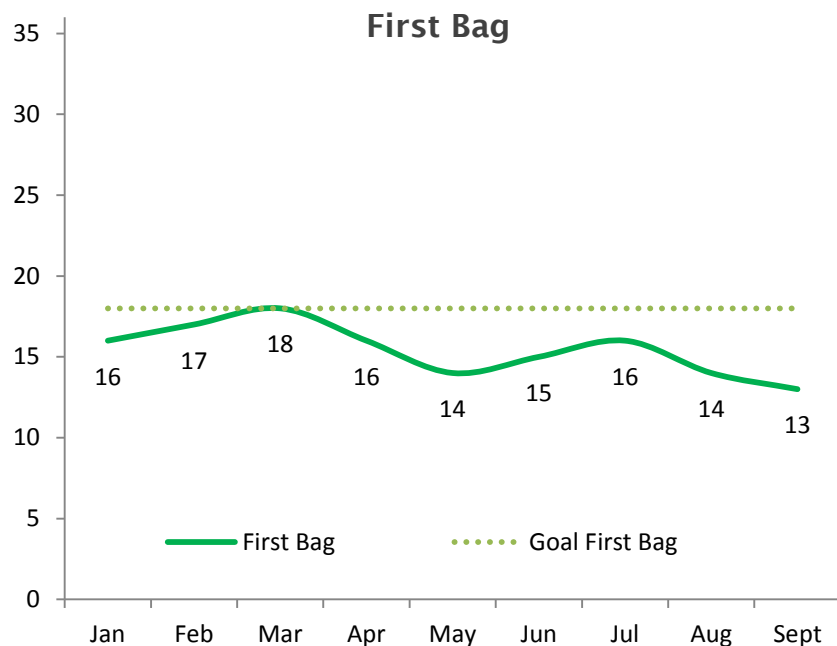
2016	GOAL	20'
	YTD	23'

Decrease of 3,2% in September, compared to YTD average until August

Baggage claim - International

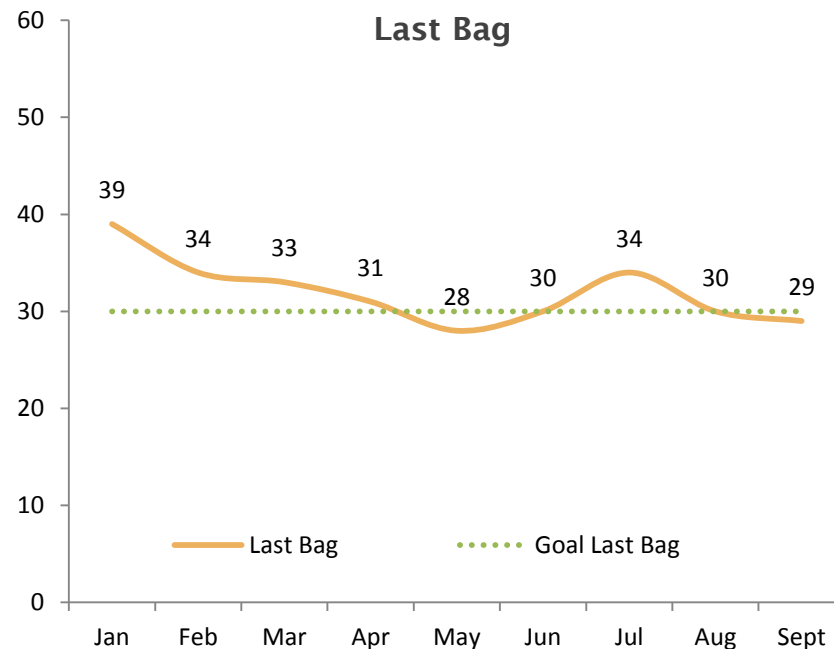


Baggage Claim - International



* in Minutes

2016	GOAL	18'
	YTD	16'



* in Minutes

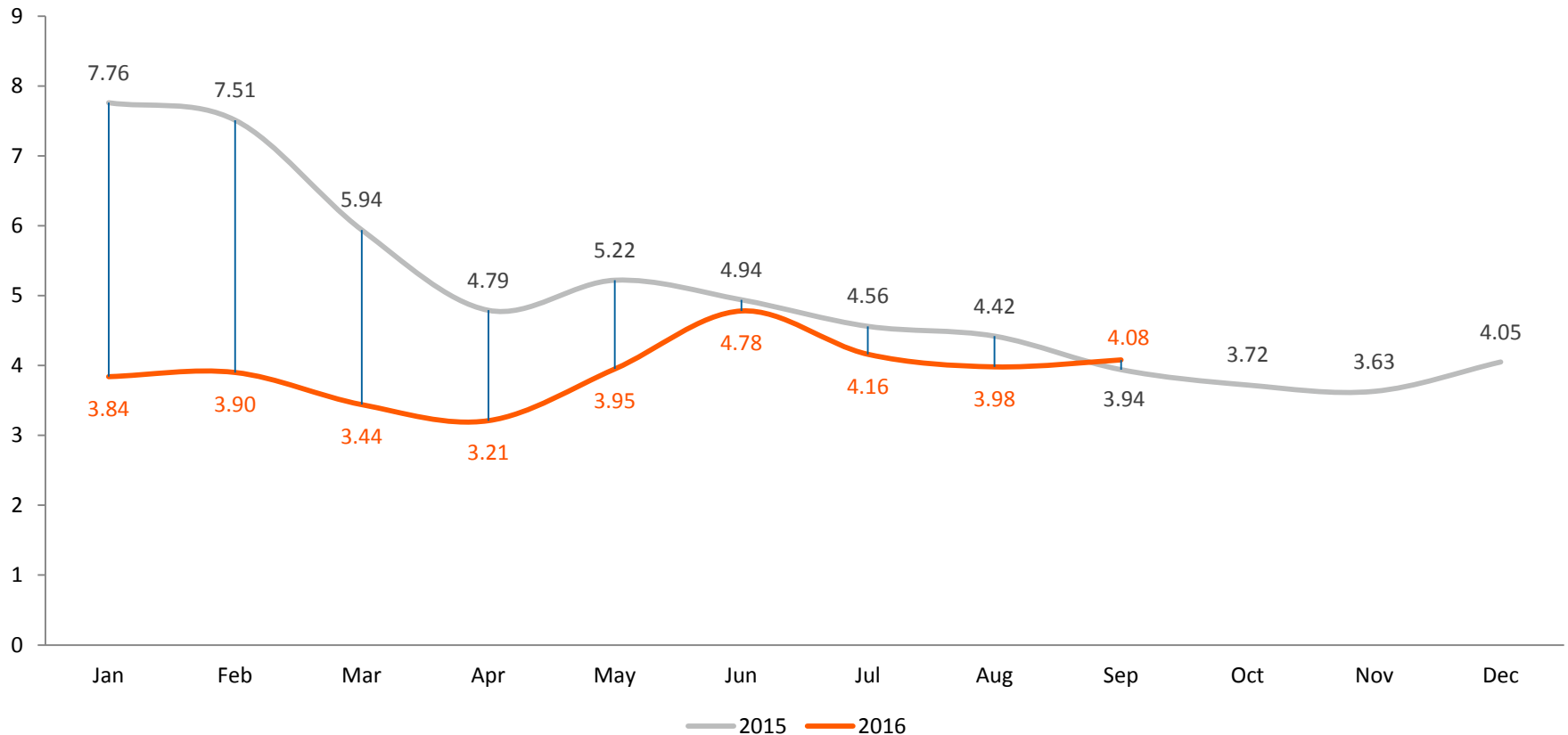
2016	GOAL	30'
	YTD	32'

Decrease of 12,7% in September, compared to YTD average until August

Mishandled and Damaged Bags



Mishandled and Damaged Bags Ratio (*₁₀₀₀ Pax)



Mishandled Bags Ratio in Connecting Flights = **0.48**

20,9% decrease in baggage mishandled and damaged in 2016 compared to 2015

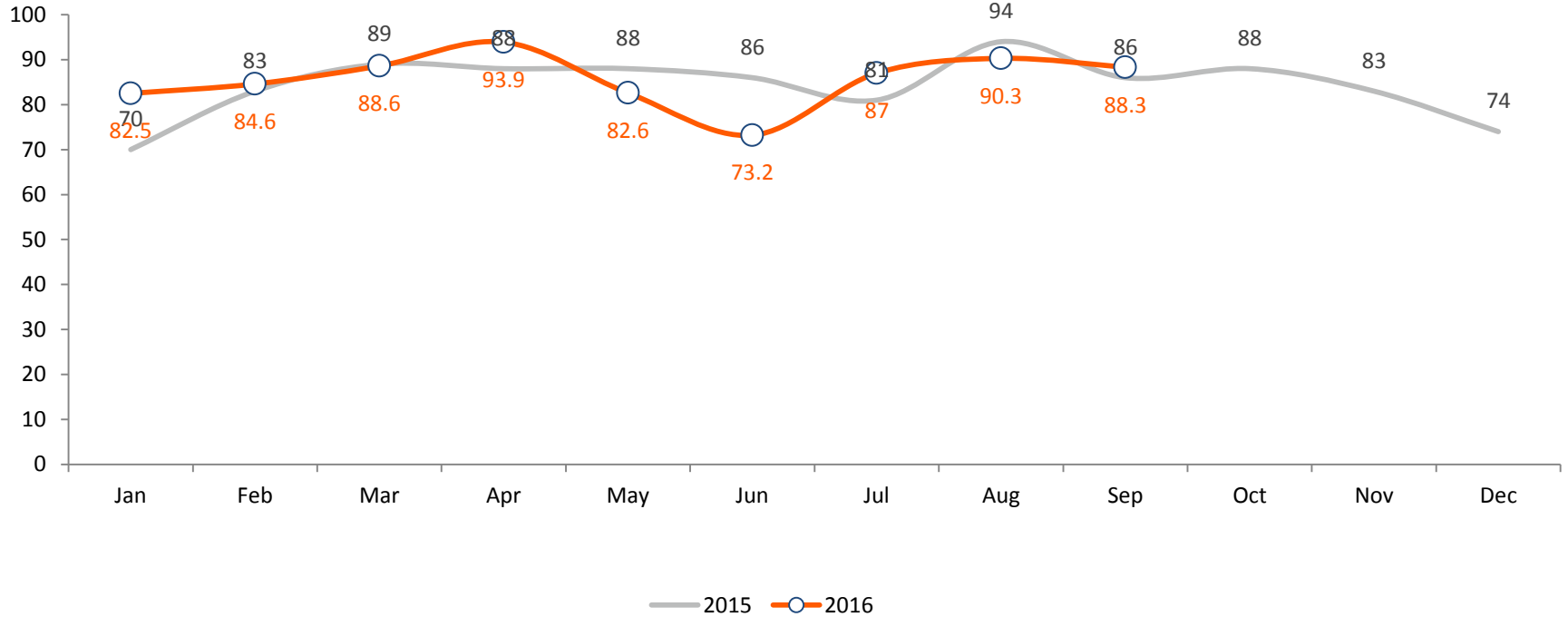
% OTP Domestic Flights - D 15'



Domestic YTD

85.3%

D15 - Domestic Flights



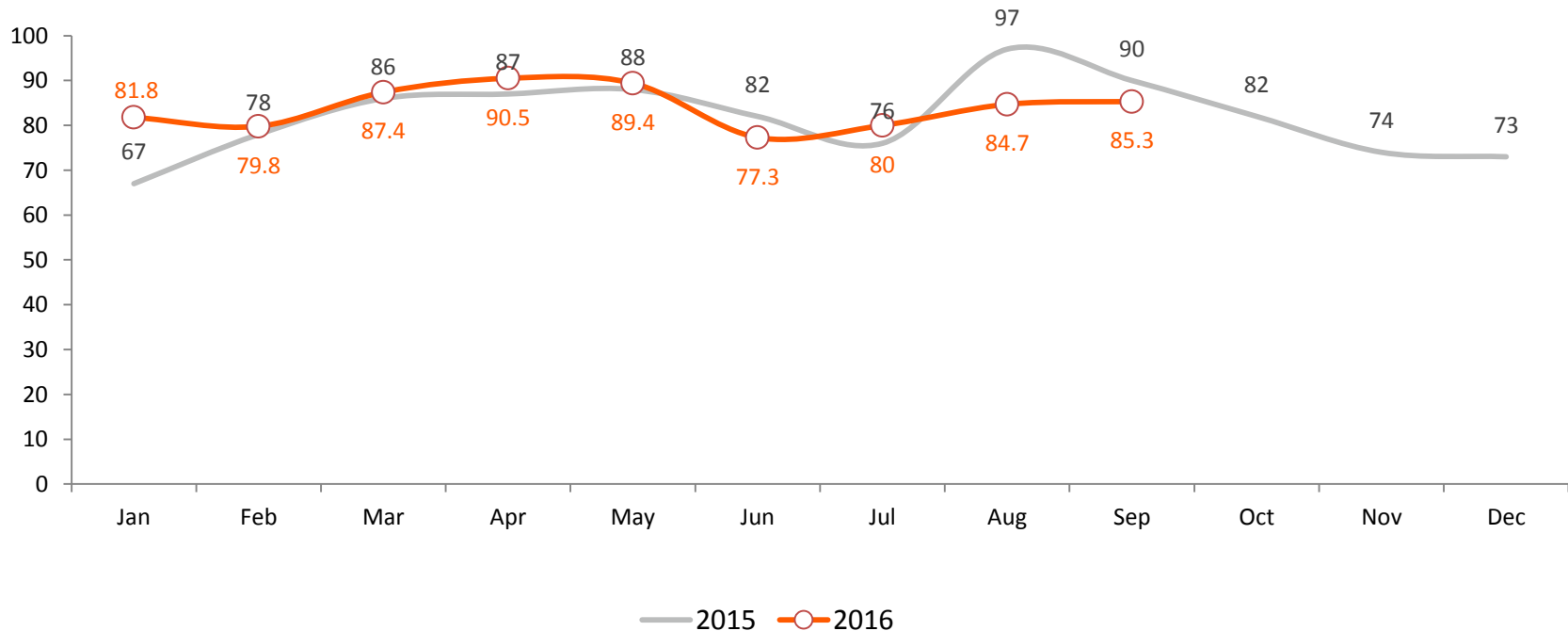
% OTP International Flights - D 15'



International YTD

83.8%

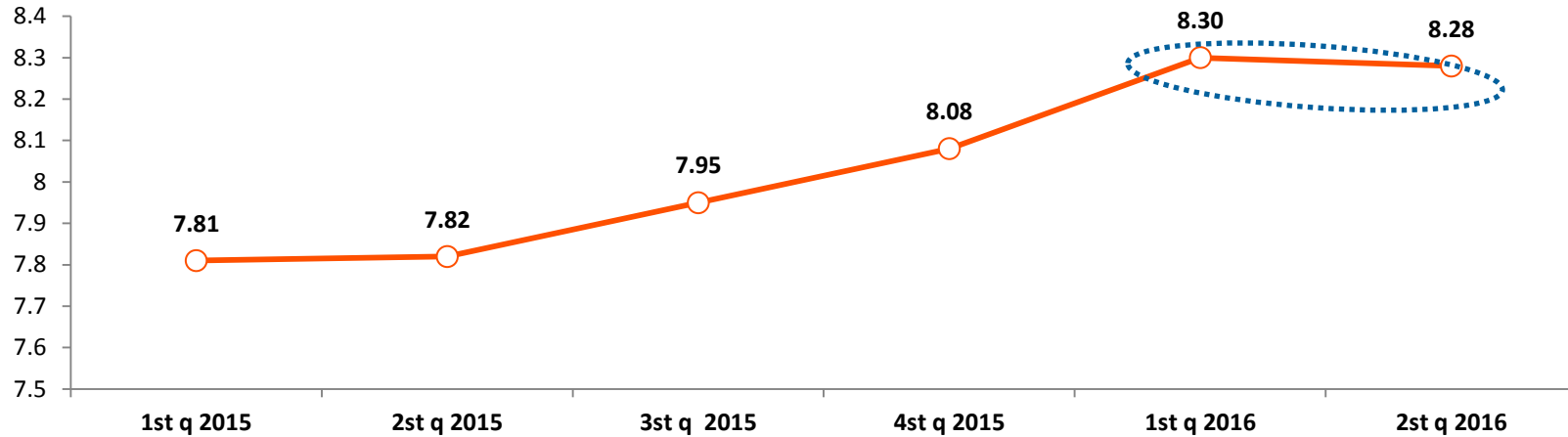
D15 - International Flights



Satisfaction Survey – GOL & GRU Airport

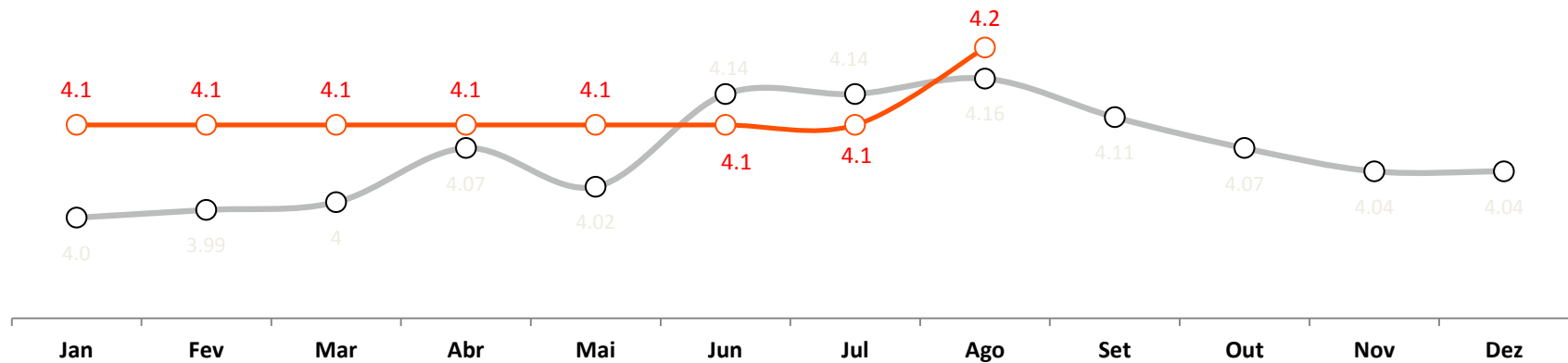


GOL Survey *



* Source: Ibope

GRU Airport Survey**



** Source: Fipe

○ 2015 ○ 2016

Ramp Vendor Transition



Ramp Vendor Transition

Biggest ramp transition ever held in Brazil

- 2,800 flights per month
- 657 Employees
- 449 pieces of GSE
- 102 days to transfer Ramp operation from Swissport to Dnata



Ramp Vendor Transition

Transition success achieved through ACDM coordination

- Two phase transition
- Dnata takes international flights on September 11
- Full operation starts on October 01



Thank you!

Capt Sergio Quito
COO
Squito@voegol.com.br



GRUAIRPORT AEROPORTO
INTERNACIONAL
DE SÃO PAULO

GOL
Linhas aéreas inteligentes