

RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

Brazilian Postal Operator Uses RFID to Improve Visibility

- Odarci Roque de Maia Junior
advisor

Operations Research, Development and Innovation Lab
Department

the challenge **track many packages in a short window**

Insert video here

Large quantities





12 airplanes
650,000
lb/day

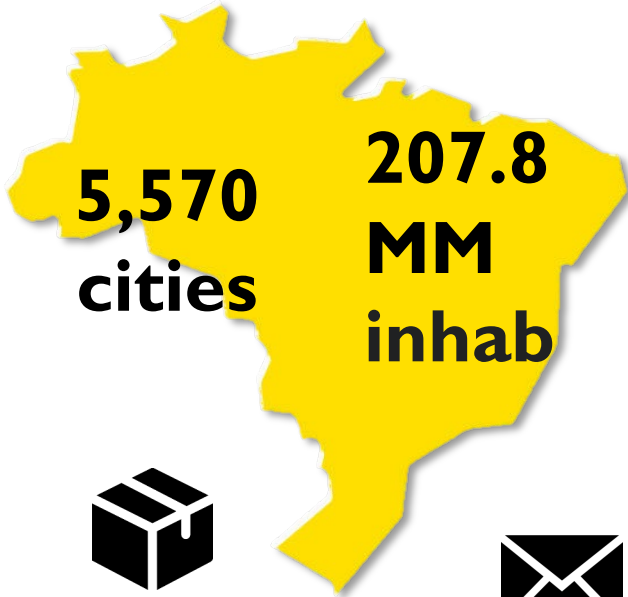


3,000
outsourced
fleet



24,000
own fleet

745,000
miles daily
(last mile)



1.97 million
packages
delivered per
day



7 million
letters delivered
per day



10,811
post
offices



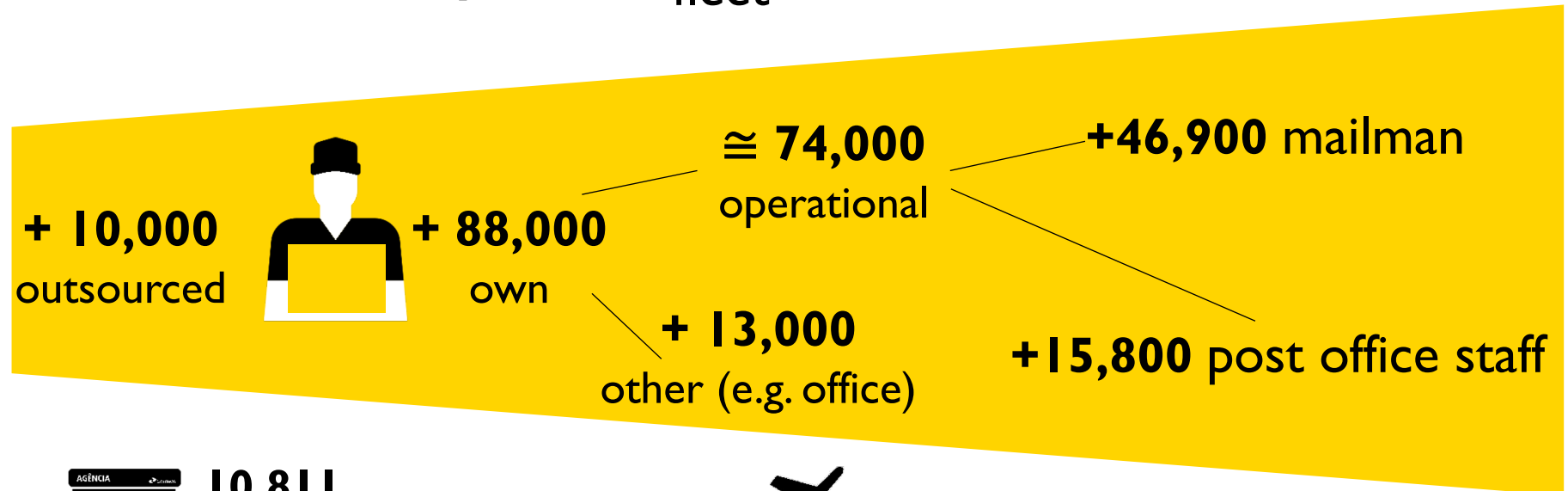
53
sorting
centers



6
cargo
terminals



1,051
delivery
centers



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

RFID



time measurement - sampling ➡ track & trace

test letters customers' objects

project organization

technical cooperation agreement with UPU and GS1

source of funds

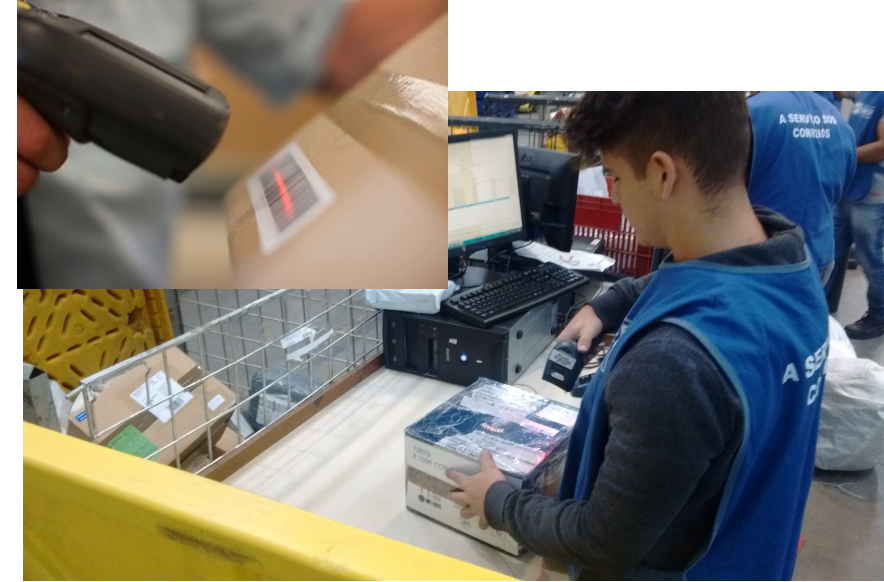
multidisciplinary working group

team training



project assumptions

keep current operational processes
integrated with barcode T&T systems
interoperable
low cost for company and customers
scalable



UPU S10 id



1st
MILE

SORTING & TRANSPORT

LAST
MILE



Volume
Mailers



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

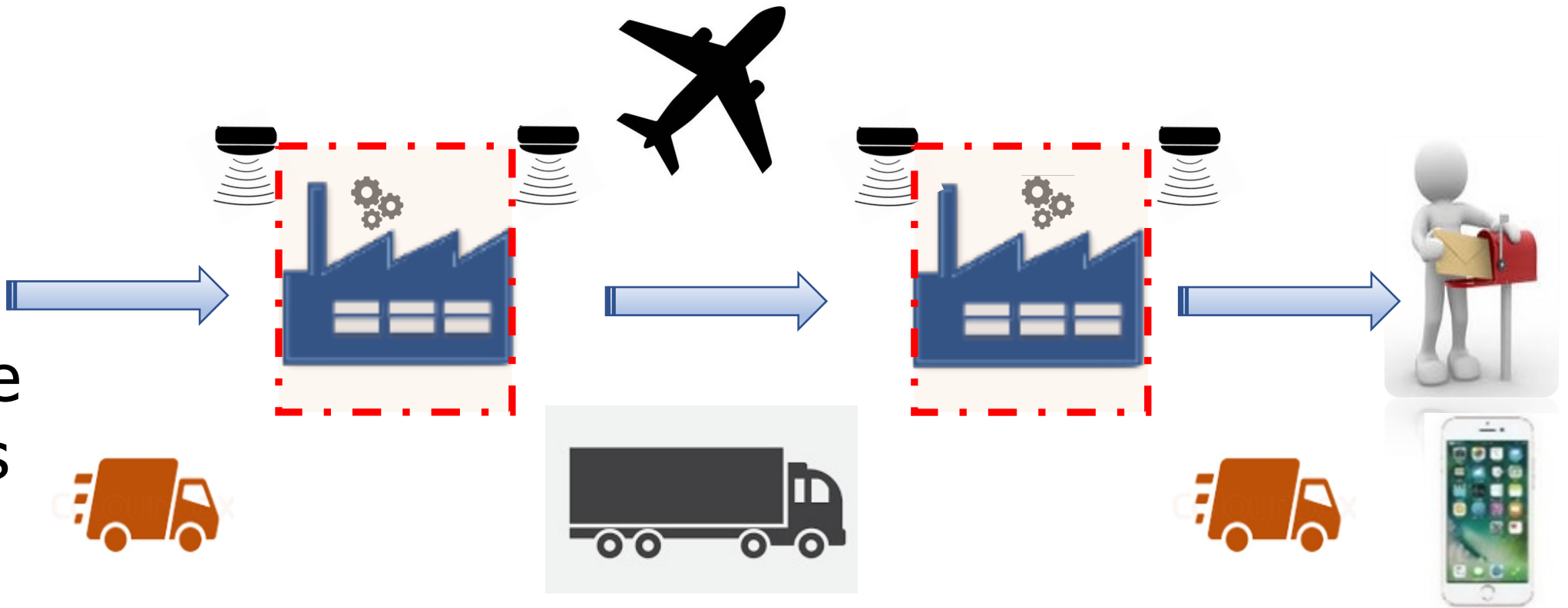
1st
MILE

SORTING & TRANSPORT

LAST
MILE

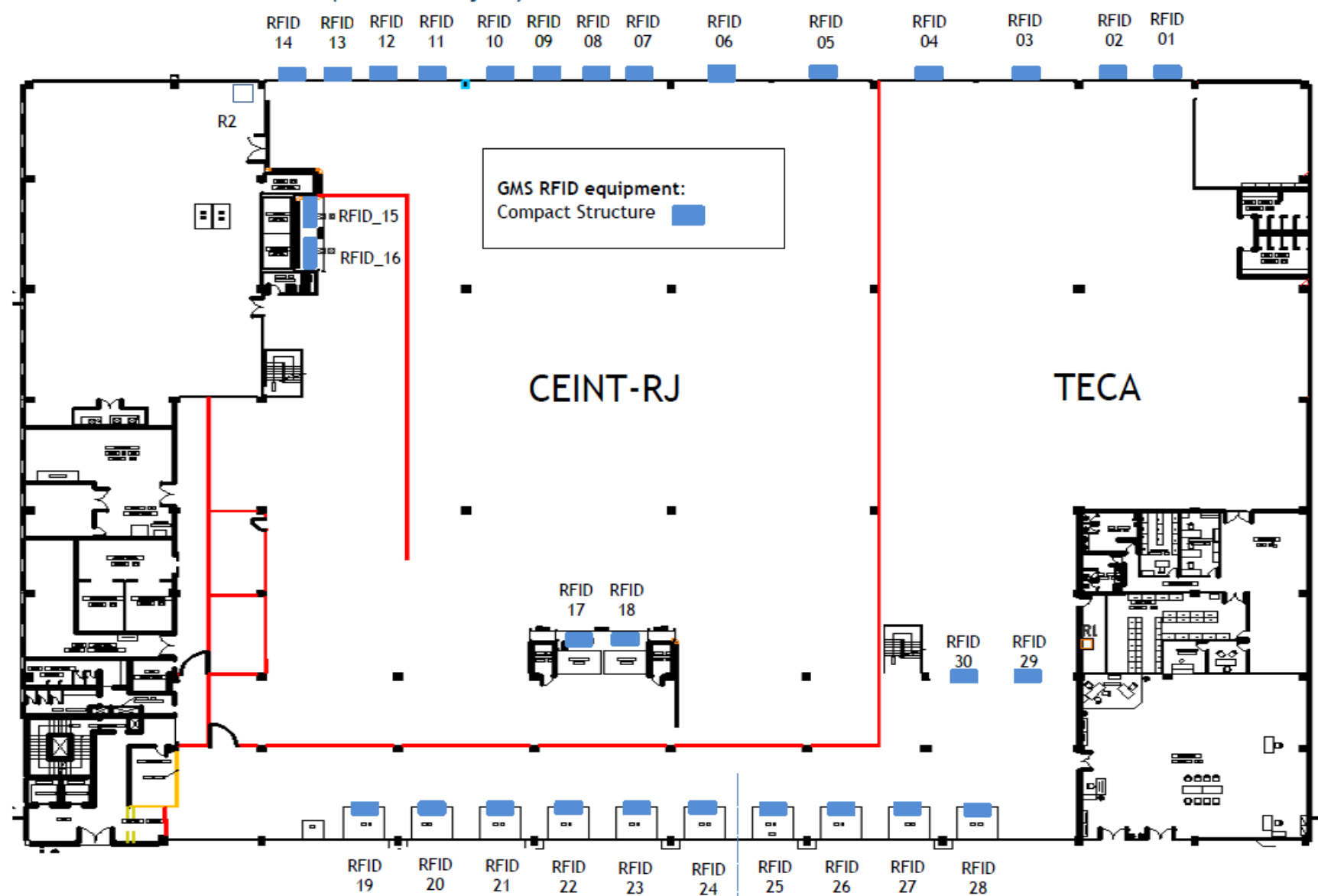


Volume
Mailers



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA



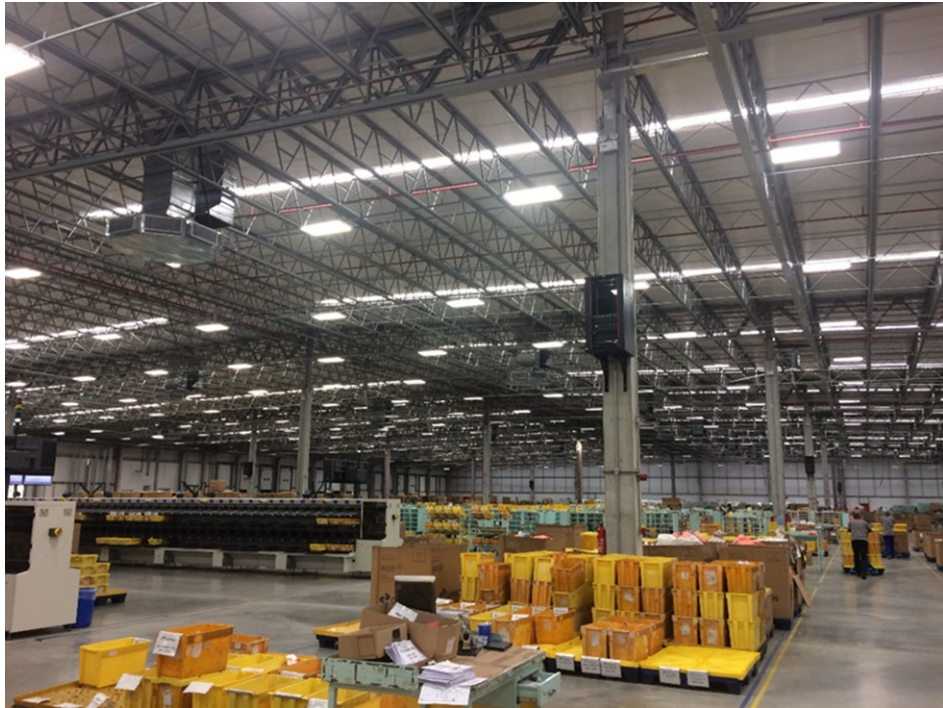
high quantity of packages



material variability



diversity of unitizing equipment



RFID JOURNAL LIVE!

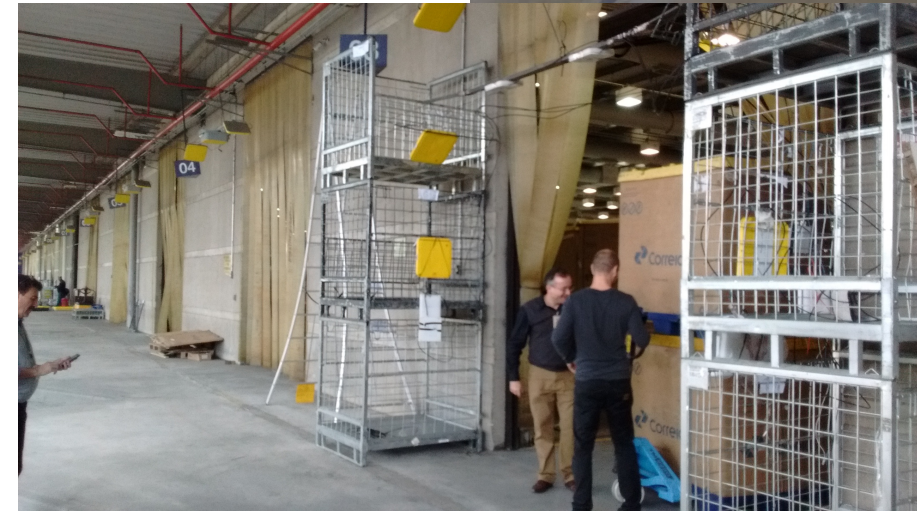
MAY 9-11, 2023 | ORLANDO, FLORIDA

Performance reference inlay

Inlay DogBone™ with chip Impinj Monza R6

Operating frequency: global 860-960 MHz

memory EPC: 96 bits



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

Information recorded on the chip

Standard GS1

SSCC – Serial Shipping Container Code
(**parcels & dispatches**)

GRAI – Global Returnable Asset
Identifier
(**containers/ transport devices**)



Counter
customer



data flow



S10 + SSCC

postal
service

physical flow



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA



S10

S10 + SSCC (or SGTIN)

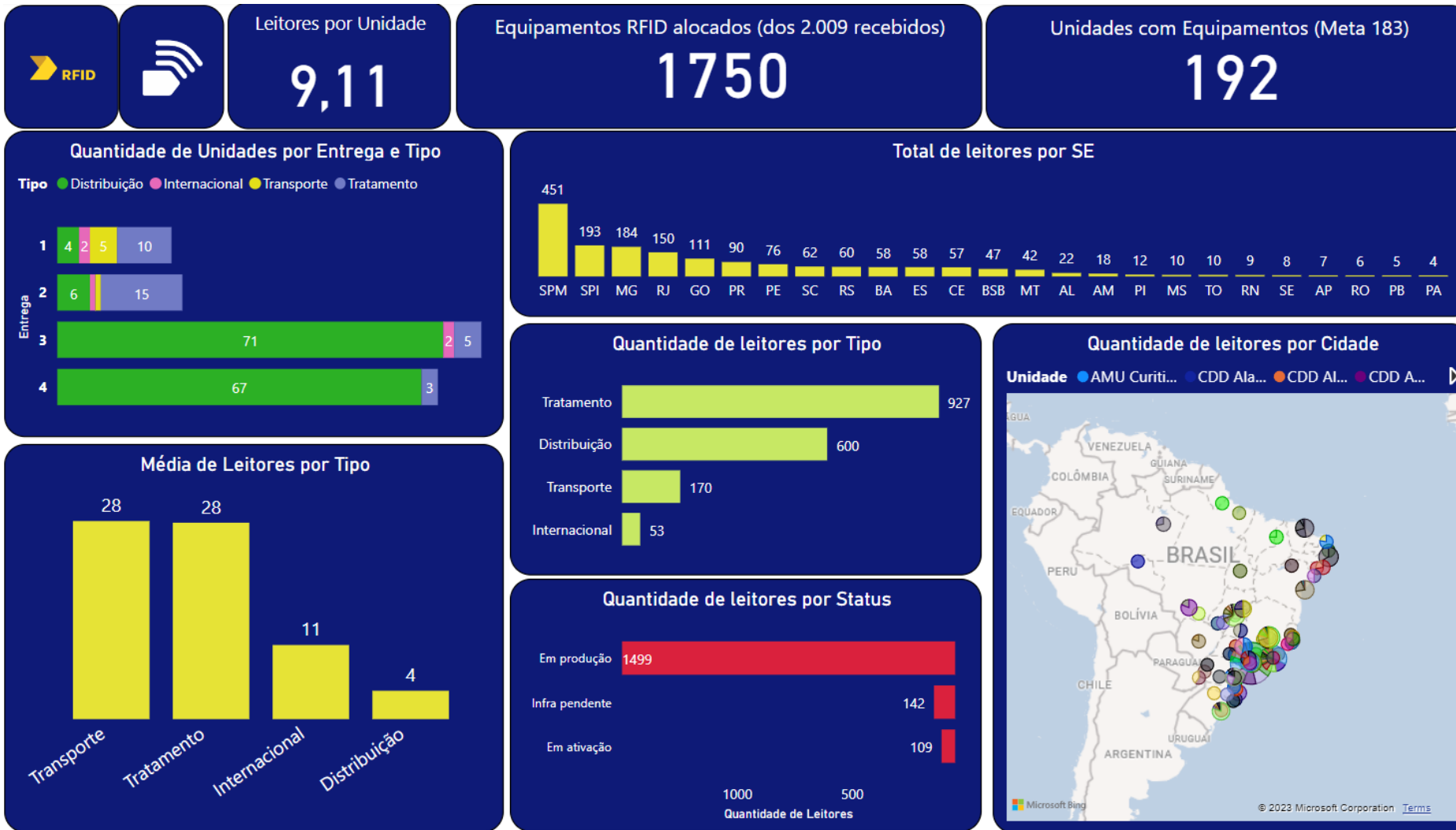
postal
service



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

Status



Status

readers acquired 2,009

allotted 1,750

postal facilities 192

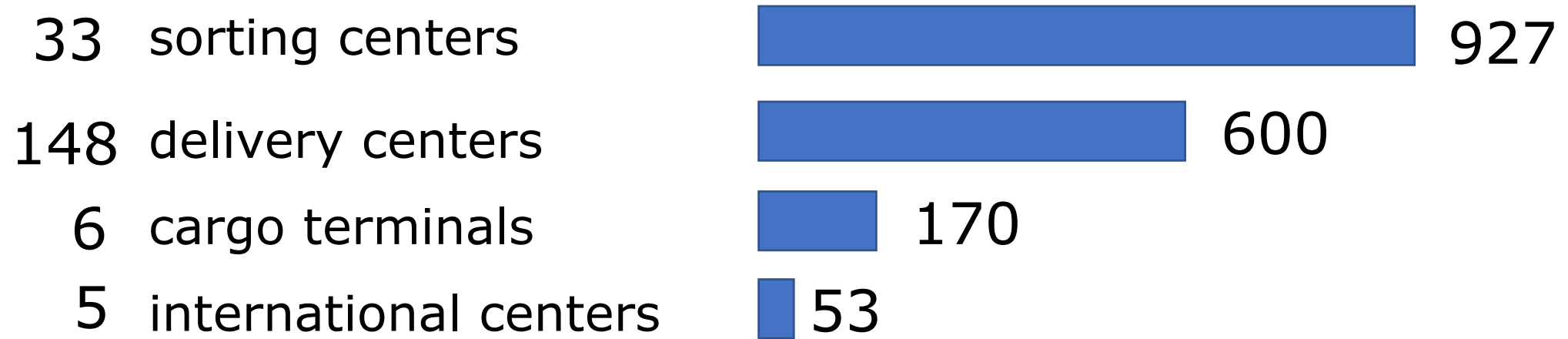
site survey & technical reserve 259

on April 19th



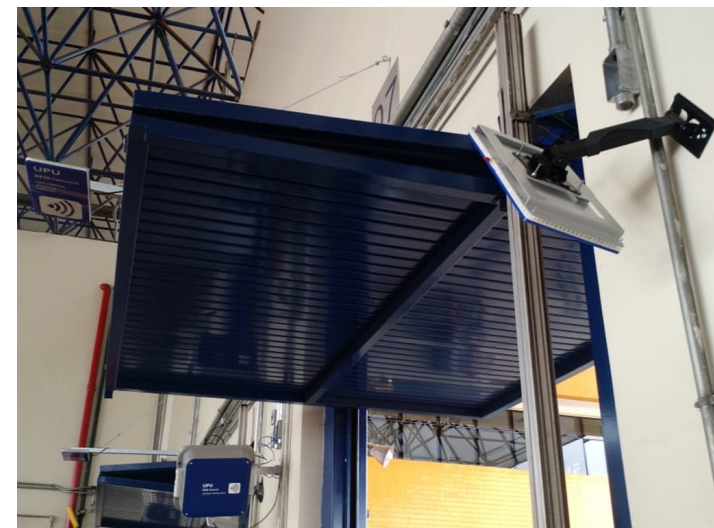
Status

readers installed by type of site



fully operational postal facilities

140 sites with 1499 readers on April 19th



RFID JOURNAL LIVE!

MAY 9-11, 2023 | ORLANDO, FLORIDA

Main benefits

simultaneous (several items at once), involuntary and automated tracking

expected a minimum 30% reduction in company expenses due to lost items, processing failures and delivery delays

January 21st, 2020



ECT - EMP. BRAS. DE CORREIOS E TELEGRAFOS
AG: 10300473 - AC CENTRAL DE BRASILIA - DF
BRASILIA
CNPJ..... 34028316513674 Ins Est.: 0733382100205
COMPROVANTE DO CLIENTE

Movimento...: 21/01/2020 Hora.....: 10:53:01
Caixa.....: 95133548 Matrícula...: 80280129
Lancamento...: 004 Atendimento: 00002
Modalidade...: A Vista ID Tiquete: 1766928239

DESCRIÇÃO	QTD.	PREÇO(R\$)
ENVELOPE BOLHA DVD	1	4,50+
Preço Unitário(R\$)...	4,50	
SEDEX A VISTA	1	21,00+
Valor do Porte(R\$)...	21,00	
Cep Destino: 70655-811 (DF)		
Peso real (KG).....	0,027	
Peso Tarifado.....	0,027	
OBJETO=> DA161915685BR		
RFID.....: (00)079035750000304939		
PE - 1 ED - S ES - S		
TOTAL DO ATENDIMENTO(R\$)		25,50
Valor Declarado não solicitado(R\$) No caso de objeto com valor, utilize o serviço adicional de valor declarado.		
PE - Prazo final de entrega em dias úteis. ED - Entrega domiciliar - Sim/Não. ES - Entrega sábado - Sim/Não. RE - Restrição de entrega - Sim/Não. * Para fins de contagem do prazo de entrega, sábados, domingos e feriados não são considerados dias úteis. Postagens ocorridas aos sábados, domingos e feriados, considerar o próximo dia útil como o 'Dia da Postagem'.		
TOTAL(R\$)=>		25,50
VALOR RECEBIDO(R\$)=>		25,50
SERV. POSTAIS: DIREITOS E DEVERES-LEI 6538/78		
Ganhe tempo! Baixe o APP de Pré-Atendimento dos Correios PROCON-DF(151) Versão 2000, BL B-60 s/240. Tenha sempre em mãos o número do ID Tiquete deste comprovante, para eventual contato com os Correios. VIA-CLIENTE SARA 8.0.00		



THANK YOU

RFID
JOURNAL
LIVE!

MAY 9-11, 2023
ORLANDO, FLORIDA
