Using Data to become Predictive

SMS done right

Overview

Welcome: Using Data to become Predictive

Session Duration:✈ 20 minutes

Topics:

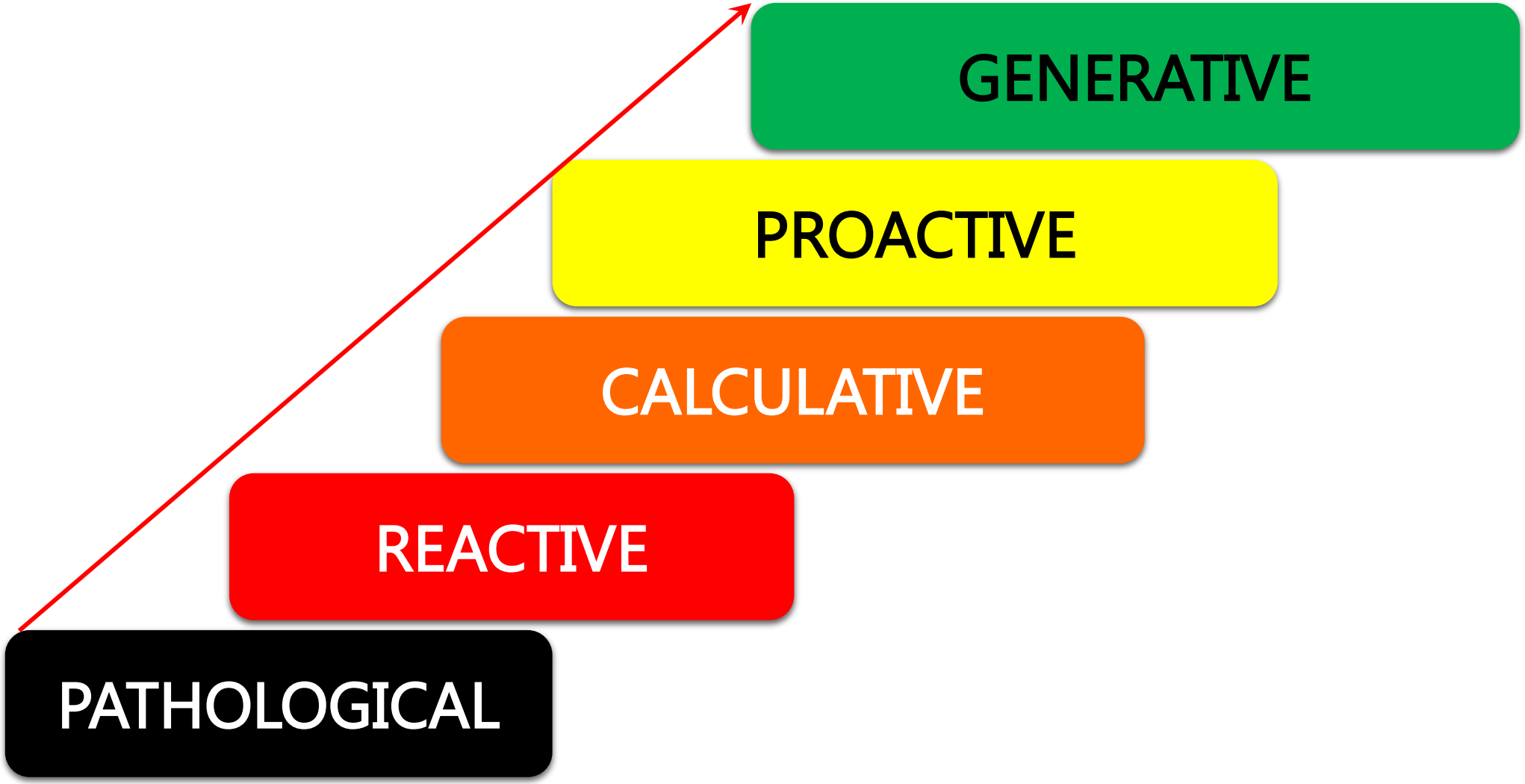
- Influence of Data
- Influence of Data on the Air Operators
- Collecting Operator data
- Using Data to enhance Safety
- Examples Data based driven decision making
- Questions

facebook
Cambridge
Analytica

Influence of Data on Air Operators

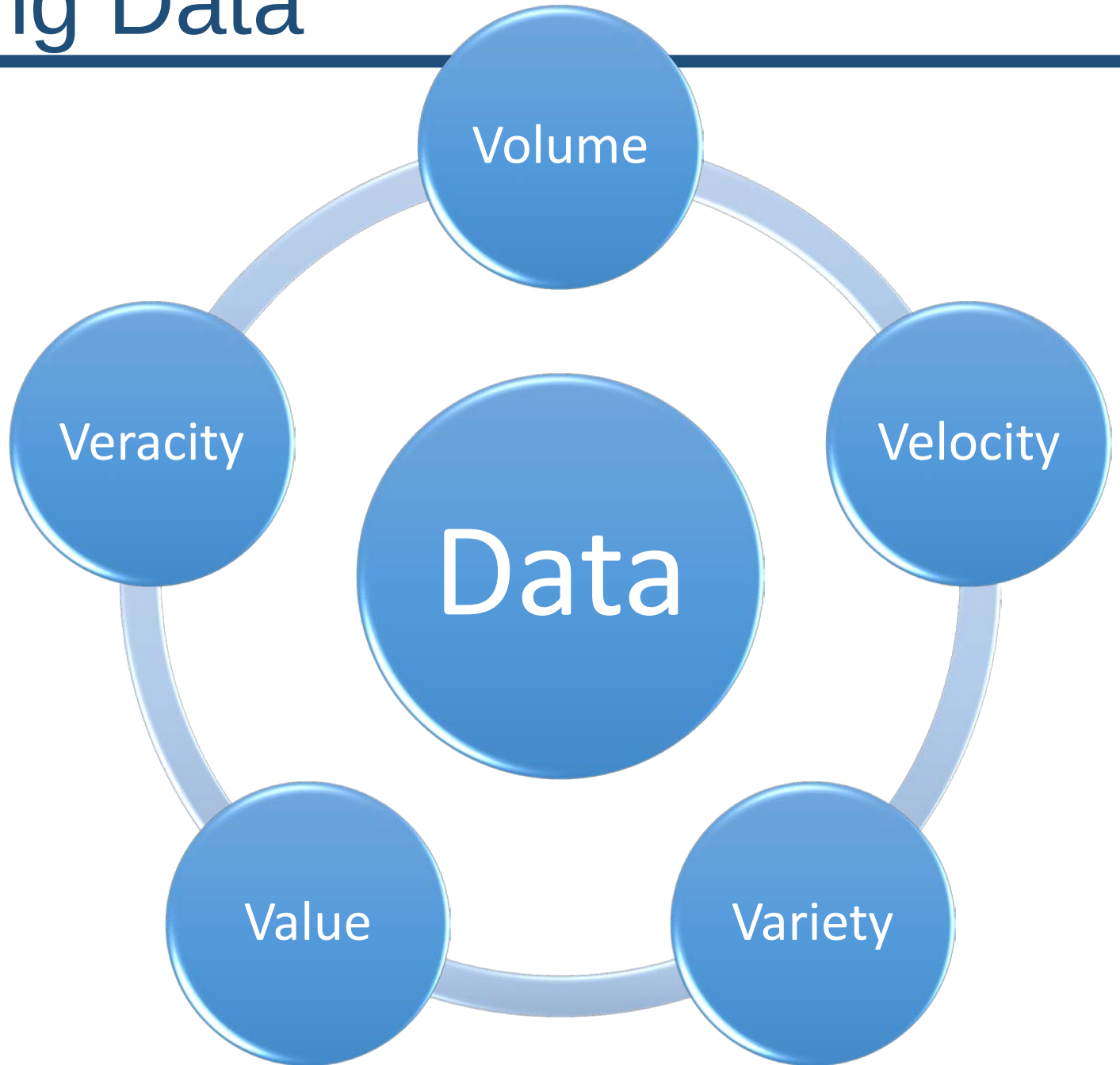
- Hundreds of planes, thousands of flights and millions of employees & Pax
- There is too much data and too many variables for humans to sort through fast enough to fix problems.
- 2026 the annual aviation data is expected to reach 98 billion gigabits
- Data + advanced analytics = anticipation

Influence of Data on Air Operators

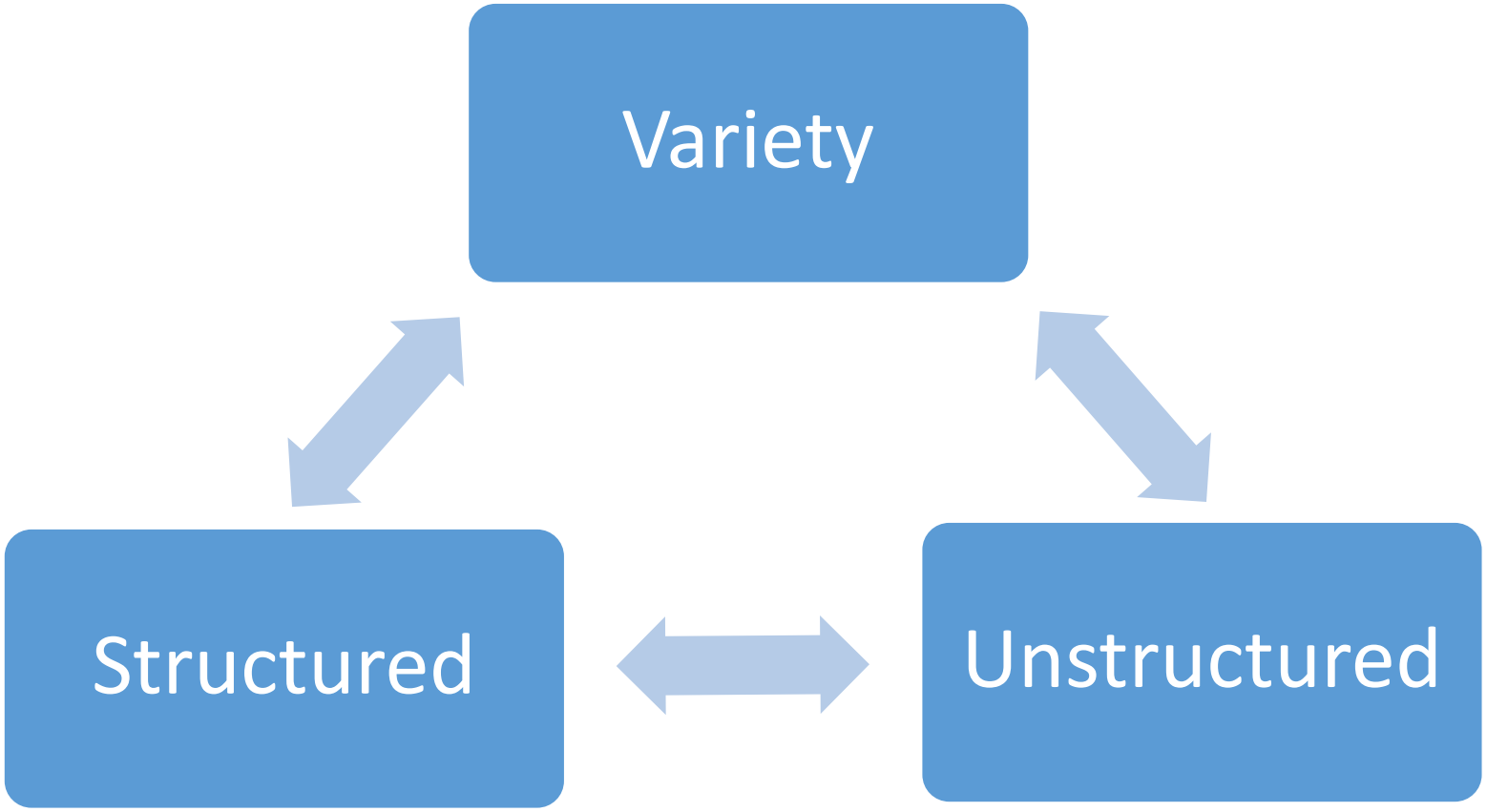


Source: Professor Patrick Hudson (Safety Culture Ladder)

Collecting Data



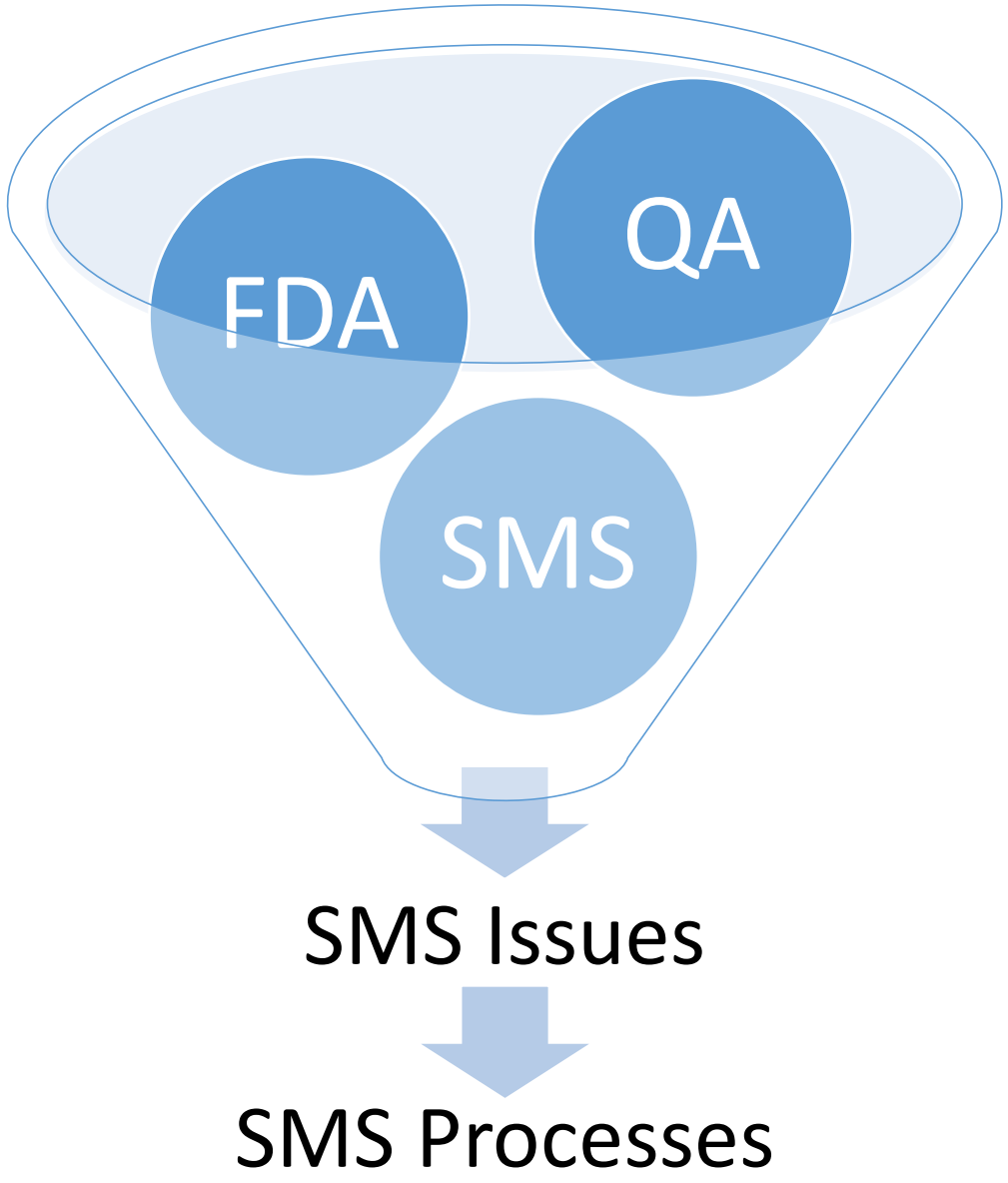
Using Data to enhance safety



Using Data to enhance safety

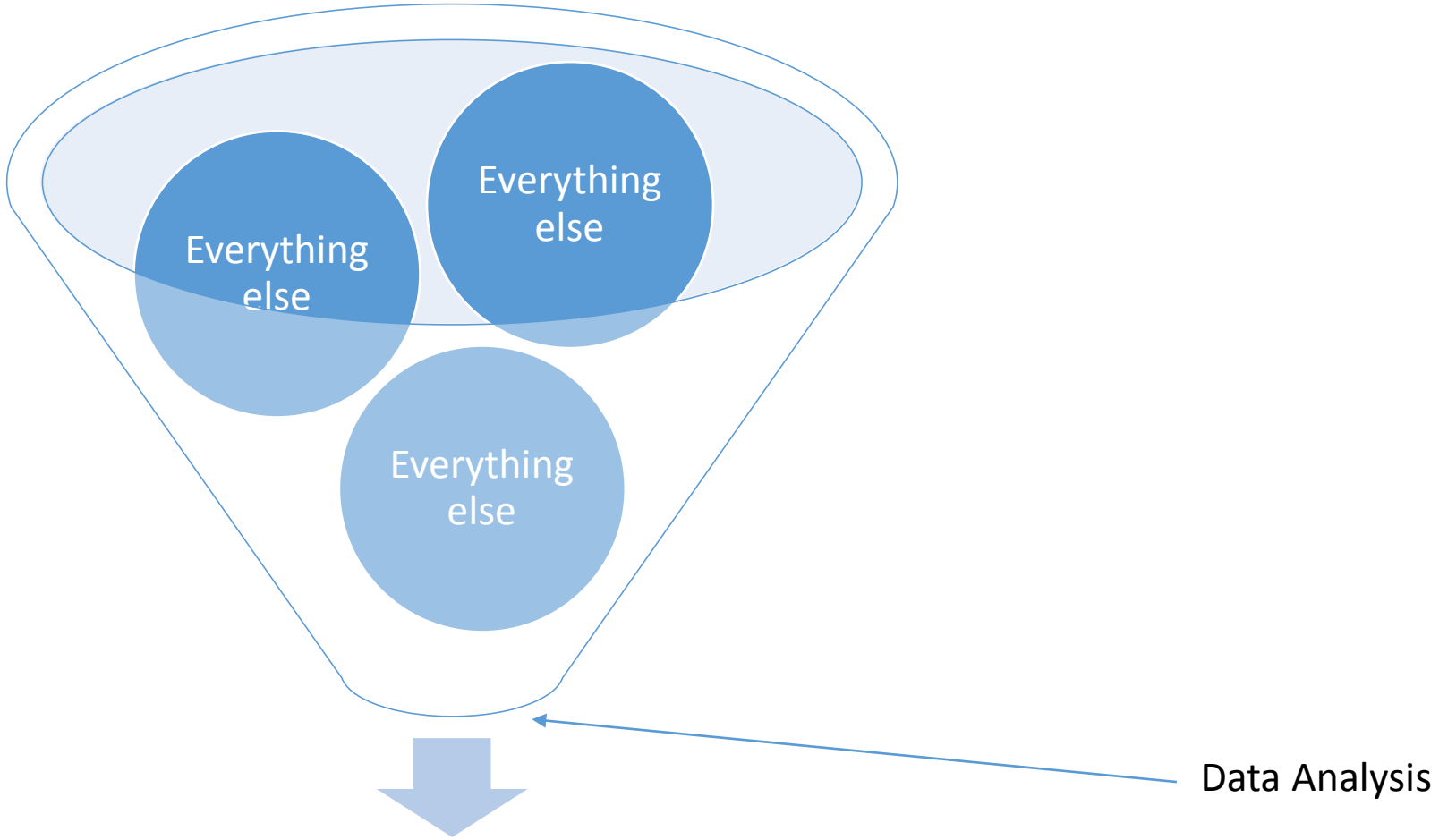
Using Data to enhance safety

Structured Data



Using Data to enhance safety

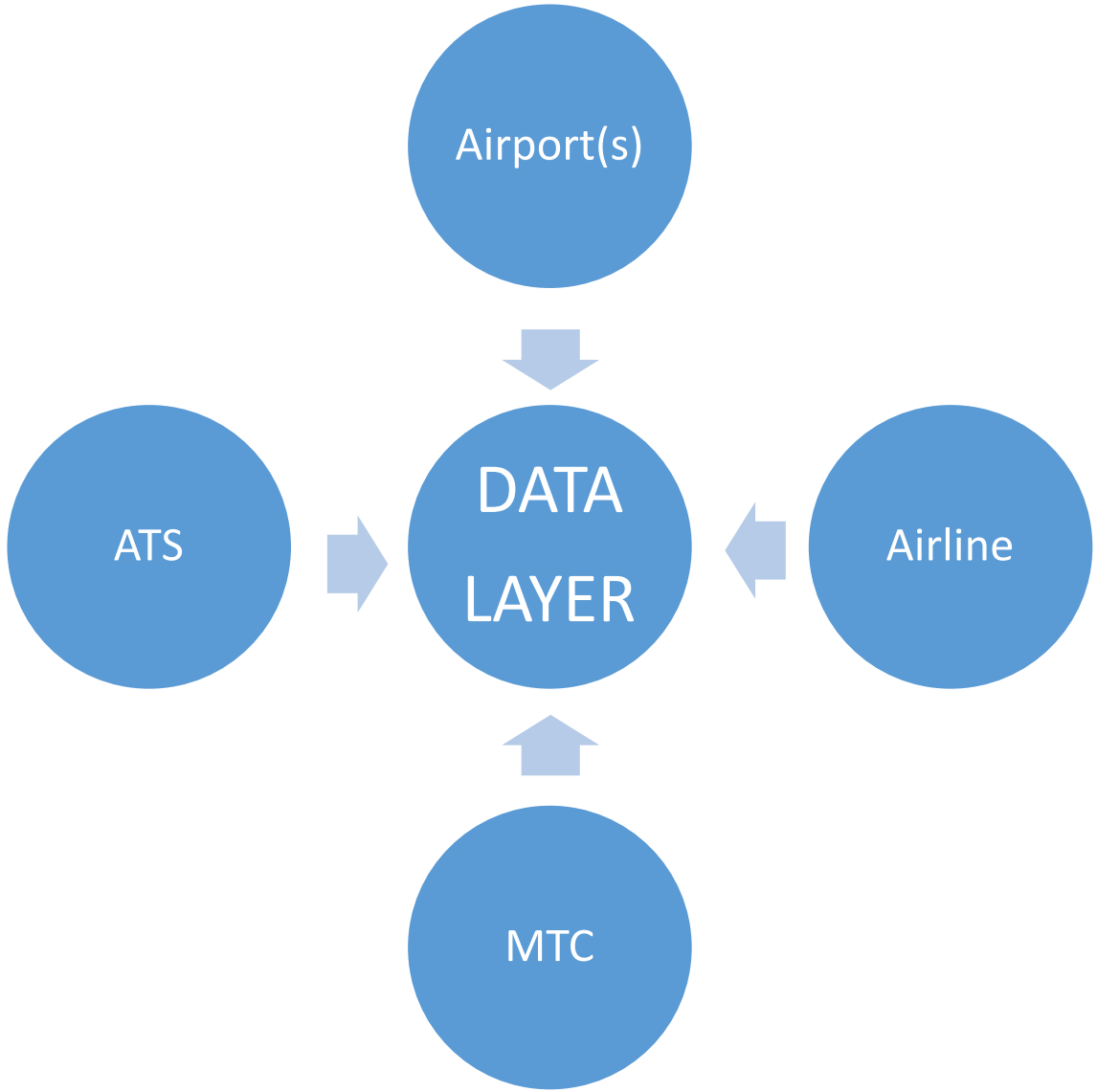
Unstructured Data



Predictive SMS

Using Data to enhance safety

Unstructured Data



Examples

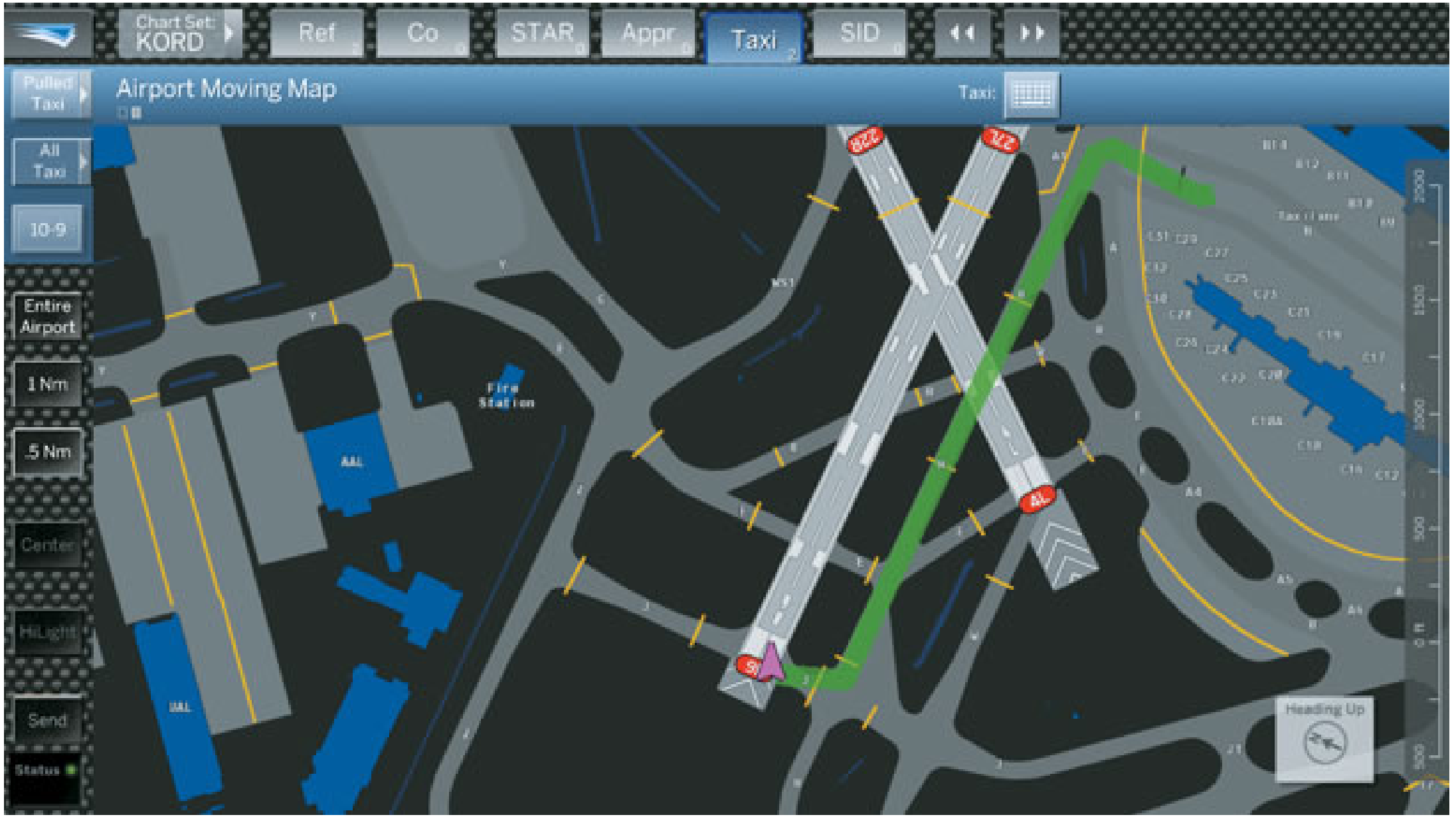
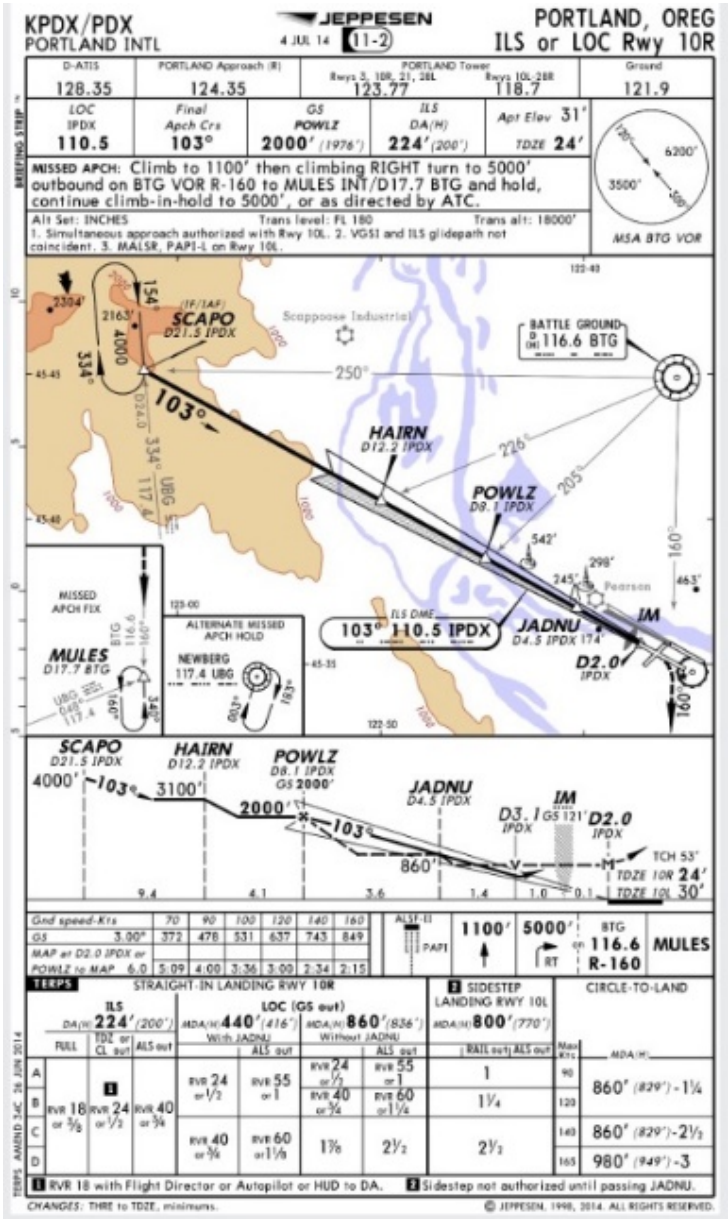


Chart Set: KORD
Ref
Co
STAR
Appr
Taxi
SID
Airport Moving Map
Taxi:
Pulled Taxi
All Taxi
10-9
Entire Airport
1 Nm
.5 Nm
Center
HiLight
Send
Status
Fire Station
AAL
IAL
Heading Up

Examples


KPDX/PDX
PORTLAND INTL
JEPPESEN
4 JUL 14
11-2
PORTLAND, OREG
ILS or LOC Rwy 10R
D-ATIS 128.35
PORTLAND Approach (R) 124.35
PORTLAND Tower Rwys 3, 10R, 21, 28L 123.77
Rwys 10L, 28R 118.7
Ground 121.9
LOC IPDX 110.5
Final Apch Crs 103°
GS POWLZ 2000' (1976')
ILS DA(H) 224' (200')
Apt Elev 31'
TDZE 24'
MISSED APCH: Climb to 1100' then climbing RIGHT turn to 5000' outbound on BTG VOR R-160 to MULES INT/D17.7 BTG and hold, continue climb-in-hold to 5000', or as directed by ATC.
Alt Set: INCHES
Trans level: FL 180
Trans alt: 18000'
1. Simultaneous approach authorized with Rwy 10L. 2. VGSI and ILS glidepath not coincident. 3. MALSR, PAPI-L on Rwy 10L.
MSA BTG VOR
6200'
3500'
SCAPO
D21.5 IPDX
HAIRN
D12.2 IPDX
POWLZ
D8.1 IPDX
JADNU
D4.5 IPDX
IM
D2.0
IPDX
BATTLE GROUND
116.6 BTG
MULES
D17.7 BTG
NEWBERG
117.4 UBG
ALTERNATE MISSED APCH HOLD
MISSED APCH FIX
ILS DME
103° 110.5 IPDX
Scappoose Industrial
Pearson
GS 3.00°
1100'
5000'
BTG 116.6
R-160
MULES
STRAIGHT-IN LANDING RWY 10R
SIDESTEP LANDING RWY 10L
CIRCLE-TO-LAND
ILS DA(H) 224' (200')
LOC (GS out) MDA(H) 440' (416') With JADNU
MDA(H) 860' (836') Without JADNU
MDA(H) 800' (770')
RVR 18 or 5/8
RVR 24 or 1/2
RVR 40 or 3/4
RVR 55 or 1
RVR 60 or 1 1/4
1 1/4
1 3/8
2 1/2
2 1/2
860' (829') - 1 1/4
860' (829') - 2 1/2
980' (949') - 3
RVR 18 with Flight Director or Autopilot or HUD to DA.
Sidestep not authorized until passing JADNU.
CHANGES: THRE to TDZE, minimums.
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Examples

Examples

Thank you for your attention

Now we will open up the floor for any questions