

# CBTA Value and Challenges: The Voice of the Customer



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- Investing in a safer industry – Global Aerospace Safety Initiative
- Why CBTA?
- Our CBTA program and solutions
- The “voice” of the customer: CBTA value and challenges
- Next Steps

# Investing in a Safer Industry – Global Aerospace Safety Initiative

- Aligning safety management systems
- Enhanced support for customer aircrews and maintainers
- Using Advanced Analytics
- Evolving to **competency-based training and assessment**
- Strengthening our global safety and regulatory engagement
- Operational Aspects of Design



# Why CBTA?

- Boeing is evolving its approach on training customers' pilots and maintainers.
- Pilots and maintainers will learn the essential technical knowledge about how to operate Boeing products safely AND the skills, attitudes and values required to achieve the highest levels of safety.

## FLY

- Control flight path
- Do not hurry

## FOCUS

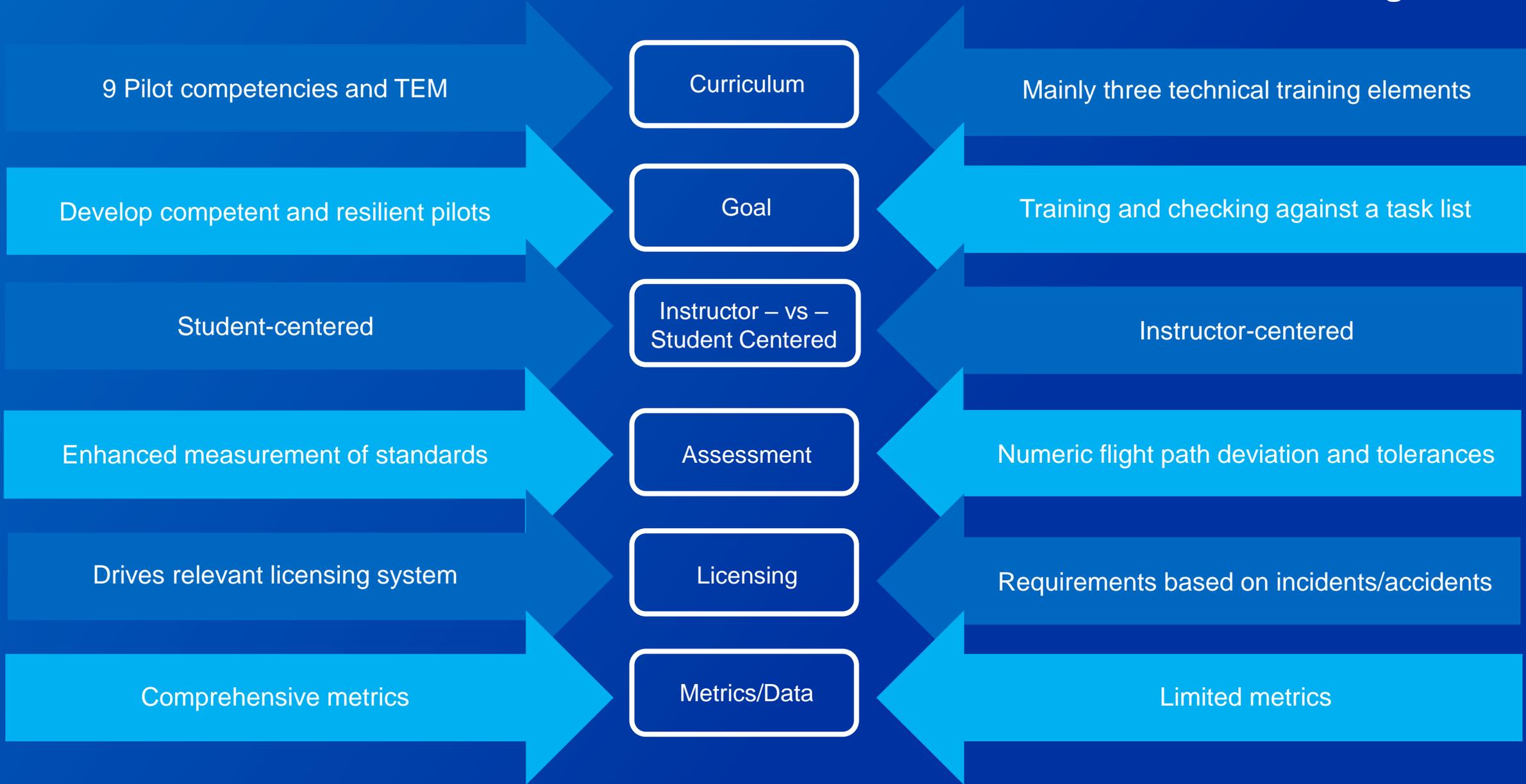
- Control emotions
- Check fellow crew member(s)
- Observe, identify and confirm

## ACT

- Event management
  - PIC designate PF
  - PM Communication and coordination
  - Crew execute final plan

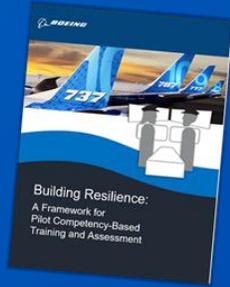
# CBTA

# Traditional Training



# Learning program

- **Building Resilience**
  - “De-mystify” industry guidance
  - Role of human factors
  - Evolution of CRM and TEM
- **Training Needs Analysis (TNA)**
  - Malfunction clustering
- **Instructor training**
  - Instructor skills course (ISC)
    - Facilitation & mentoring
  - Instructor orientation to pilot competencies (IOPC)
    - Competencies & behaviors



# Learning environment

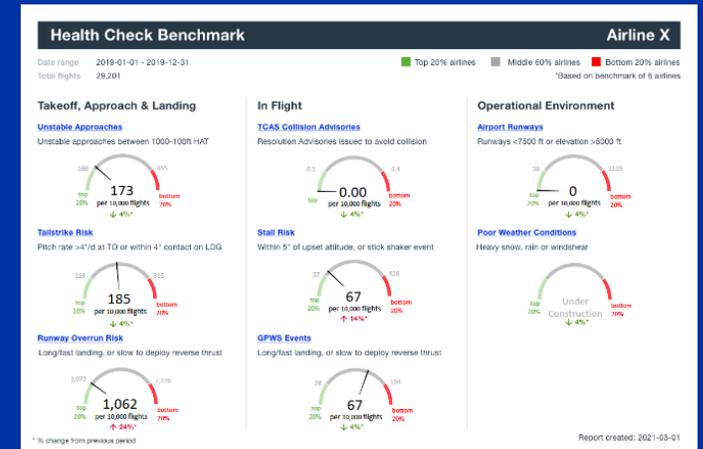
- Engaging and immersive theoretical training
- Systems & procedures
- Deep learning, retention and real-world application
- Learning modality selection



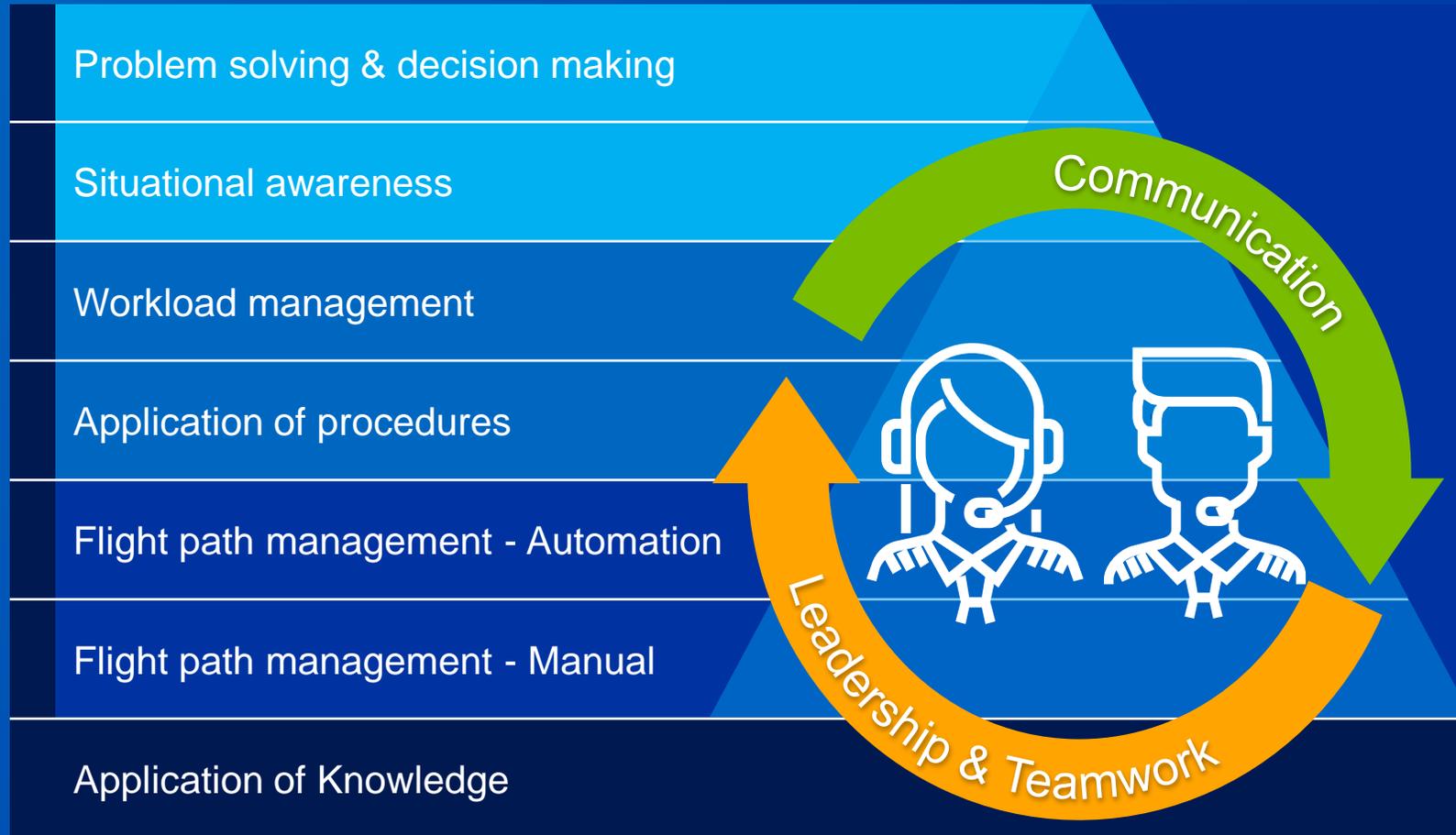
- Student-centric practical training environment
- Importance of brief and debrief
- Optimizing FSTD time

# Closed-loop learning system

- Learning Science research
- Training effectiveness studies
- Collecting assessment data
- Synthesize with operational data
- Analyze and interpret the data
- Establishing benchmarks & trends
- Drive standardization
- Elevate performance



# Pilot Competency Framework



## The Value of the Pilot Competency Framework

- Pyramid focuses on a flow that begins with knowledge foundation
- Establishes a common language
- Provides a “guide” for observations – enabling root cause analysis
- Competencies serve as countermeasures to threats & errors

# CBTA Learner Solutions:

Digital tools enhancing knowledge, application of procedures, problem solving, decision making and other competencies.



Maintenance Synthetic Trainer



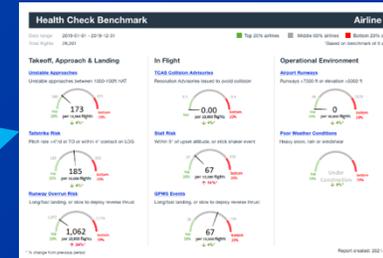
Virtual Procedures Trainer

# Informing Training through Safety Data Analytics (SDA)

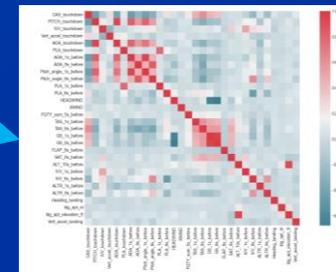
Quick  
Access  
Recorder  
Data



Tailored Recurrent  
Training Programs



Safety Performance  
Benchmarks



Correlation Analytics



Monitoring and Training  
Effectiveness Assessment

# CBTA Courses



- Instructor training
  - Initial
  - Recurrent
- Type Rating
- Differences Training

- Specialty Course Training
  - Upset Prevention and Recovery Training (UPRT)
- Recurrent Training
- Jet Bridge
- Command Upgrade

# Customer Centric Journey

## Small Group Tryouts (SGTO)

- Instructor training (IOPC)
- 737NG and MAX Type Rating
- 737NG/MAX Recurrent training
- 787 Type Rating
- 6 customers engaged throughout the process – 4 customers planned in 2023

## Heads of Training (HoT) Engagements

- Nine HoT engagements at Istanbul, London-Gatwick, Singapore, and Miami campuses
- 49 customers (over 150 pilots) and 17 regulators
- Program and learner solutions overview
- Instructor training
- 737NG/MAX Recurrent program + UPRT Training

## Collaboration with GOL Airlines

- Initial SGTO customer for 737MAX Type Rating
- Instructor training (December 2021, June 2022)
- 737NG/MAX Recurrent program evolution
- Coordination with ANAC on CBTA program
- Collaboration on Safety Data Analytics (SDA)

## For Credit Training

- 737MAX Type Rating (Miami Campus)
  - 30+ pilots trained
  - Type Rating preparation guide

# The “voice” of the customer: CBTA value and challenges

- Where do I start?
- How do I engage and work with my regulator?
- How do I engage and work with my pilot’s union?
- Grading!
- How do I train and standardize my instructors?
- What if instructors don’t “buy in” to the concept?
- How do I balance this change with other challenges?
- How do I manage all the data?
- How will I know it’s having an impact on safety?



# Next Steps for CBTA

- CBTA recurrent training evolution
- Instructor recurrent training
- Early Career Training
- Maintenance training
- Aircraft Manufacturers Flight Training Association (AMFTA) Coordination



