



# NAM/CAR/CATC/WG

Centro de Adiestramiento de la Aviación (CAA) de Cuba  
Instituto Centroamericano de Capacitación Aeroespacial (ICCAE) de COCOTSA  
Centre International de Instruction en Aéroports et Services Aviaires (CIAISA) "Ingeniero Roberto Kaleb González" de México  
Trinidad and Tobago Civil Aviation Authority Civil Aviation Training Centre

Jamaica Civil Aviation Authority Training Institute (CAATI)

United States Federal Aviation Administration (FAA) Aviation Training Center

## Report on the Implementation of the ICAO Civil Aviation Training Policy and Global Aviation Training Activities 2017-2018

**Diego Martínez**  
TRAINAIR PLUS Manager  
Global Aviation Training

NAM/CAR/CATC/WG/4  
Mexico City, Mexico, 6 to 8 June 2018





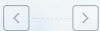
# NAM/CAR/CATC/WG

Centro de Adiestramiento de la Aviación [CAA] de Cuba  
Instituto Centroamericano de Capacitación Aeronáutica [ICCAE] de COCESNA  
Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares [CIAISA] "Ingeniero Roberto Kobeh González" de México  
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United States Federal Aviation Administration [FAA] Academy

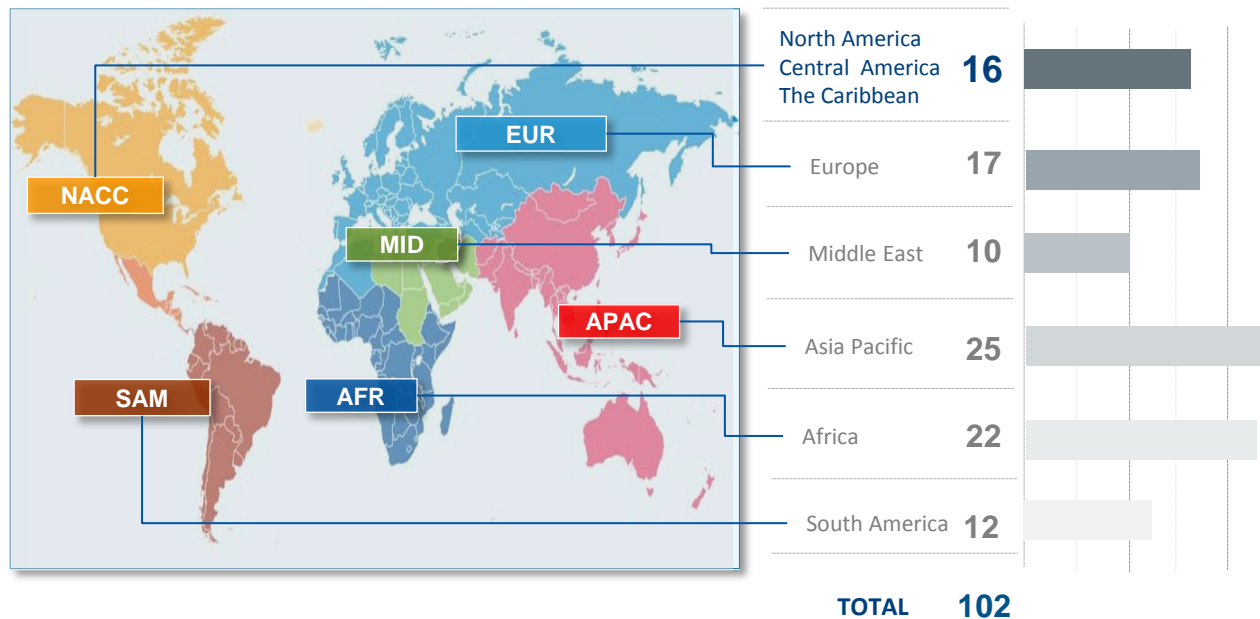
## Agenda

- TRAINAIR PLUS Network
- GAT Activities in NACC
  - ICAO Training Portfolio
  - Aviation Training intelligence (ATI)
  - Managing Compliance with ICAO SARPs
- Capacity Improving through ATI

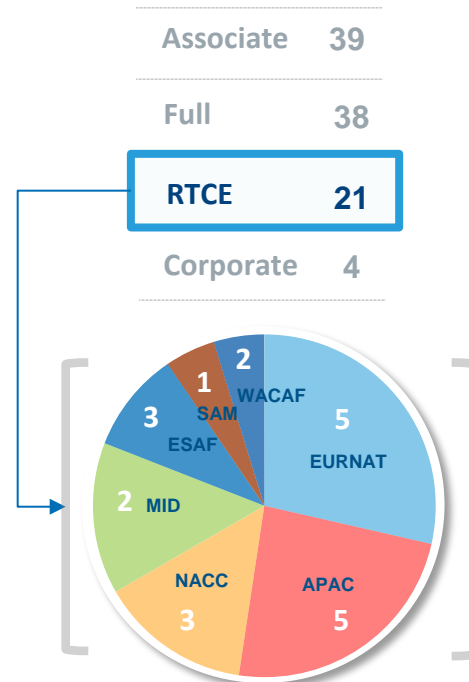


# TPP Membership Distribution

## Membership Regional Distribution



## Membership Category



## Membership in NACC

**TOTAL : 16 Members**

Barbados (1)

Canada (1) (3)

Cuba (1)

Dominica Republic (1)

El Salvador (1)

Jamaica (1)

Mexico (1)

Trinidad and Tobago (1)

United States (1) (3) (1)

4 CORPORATE MEMBERS 3 REGIONAL TRAINING CENTRES OF EXCELLENCE 6 FULL MEMBERS 3 ASSOCIATE MEMBERS

**Worldwide Membership : 102**

- Corporate Member (4)
- Regional Training Centre of Excellence (21)
- Full Member (38)
- Associate Member (39)

- The Barbados Civil Aviation Training Centre
- The ASI Institute, A Division of Aviation Strategies International
- Concordia University – John Molson School of Business
- International Air Transport Association (IATA)
- University of Waterloo
- Centro de Adiestramiento de la Aviación (CAA)
- Academia Superior de Ciencias Aeronáuticas (ASCA)
- Instituto Centroamericano de Capacitación Aeronáutica (ICCAE) de COCESNA
- Civil Aviation Authority Training Institute (CAATI)

- Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares. Ingeniero Roberto Kobeh González
- Trinidad and Tobago Civil Aviation Authority Civil Aviation Training Centre
- Advanced ATC, Inc.
- Delex Systems, Inc.
- Federal Aviation Administration (FAA) Academy
- The Washington Consulting Group (WCG), Inc. The Technical Training Group
- Federal Aviation Administration Flight Standards Training Division AFS-500

## Course Development in NACC



**21** Courses Completed



**8** Courses Under Development





## Course Implementation in NACC

(Period : Jan. 2017 - May 2018)



**878** trainees completing ICAO courses



**87** deliveries of ICAO courses



Trainees



Training Competency  
Development Courses



Deliveries



## Courses Developed in NACC (21)

No.	Country	Centre	STP Title	Area	Language	Course Duration
1	Mexico	Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Manejo de Combustibles de Aviación	Flight Safety and Safety Management	Spanish	1 week
2		Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Mantenimiento Electromecánico y de Ayudas Visuales en la Certificación de Aeródromos	Aerodromes	Spanish	1 week
3		Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Operaciones y Servicios Aeroportuarios y Complementarios en la Certificación de Aeródromos (Operations and Airport and Complementary Services in Aerodrome Certification)	Aerodromes	Spanish	1 week
4		Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Coordinación y supervisión del proceso de manejo de combustibles de aviación	Aerodromes	Spanish	1 week
5		Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Mitigación del riesgo por fauna en aeropuertos	Environment	Spanish	1 week
6		Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Coordinación de las operaciones aeroportuarias	Aerodromes	Spanish	1 week
7	Cuba	Centro de Adiestramiento de la Aviación (CAA)	Información y Cartografía Aeronáutica	Air Navigation Services	Spanish	1 week
8		Centro de Adiestramiento de la Aviación (CAA)	Curso Regulaciones de Aerodromo	Aerodromes	Spanish	1 week
9		Centro de Adiestramiento de la Aviación (CAA)	Emergencia Aeronáutica, Evacuación y Supervivencia	Air Transport	Spanish	2 weeks
10	Jamaica	Civil Aviation Authority Training Institute (CAATI)	Air Navigation Aids Technicians ATC Procedures Basic	Air Navigation Services	English	1 week
11		Civil Aviation Authority Training Institute (CAATI)	Flight Data Processing in ATC Surveillance Operations	Air Navigation Services	English	5 weeks
12		Civil Aviation Authority Training Institute (CAATI)	Aeronautical Information Officer Initial Training	Air Navigation Services	English	7 weeks
13	Canada	The ASI Institute, a division of Aviation Strategies International	Establishment of an Aerodrome Manual	Aerodromes	English	4 weeks
14		The ASI Institute, a division of Aviation Strategies International	Emergency Tabletop Exercises Management	Aerodromes	English	1 week
15	Dominican Republic	Academia Superior de Ciencias Aeronáuticas (ASCA)	Curso Especialista en Cartografía Aeronáutica/AIS	Air Navigation Services	Spanish	2 weeks
16		Academia Superior de Ciencias Aeronáuticas (ASCA)	Elaboración, Análisis e Interpretación de NOTAMS	Air Navigation Services	Spanish	2 weeks
17	El Salvador	Instituto Centroamericano de Capacitación Aeronáutica (ICCAE) de COCESNA	Inicial ATC Aeródromo	Air Navigation Services	Spanish	9 weeks
18		Instituto Centroamericano de Capacitación Aeronáutica (ICCAE) de COCESNA	Curso Práctico de Fuego Vivo para Bomberos Aeronáuticos	Aerodromes	Spanish	1 week
19	Trinidad and Tobago	Trinidad and Tobago Civil Aviation Authority - Civil Aviation Training Centre	Threat and Error Management in Air Traffic Control	Air Navigation Services	English	1 week
20	United States	Federal Aviation Administration (FAA) Academy	Runway Incursion Prevention	Aerodromes	English	1 week
21	Barbados	The Barbados Civil Aviation Training Centre (BCATC)	ATC Team Resource Management (TRM) and Safety	Air Navigation Services	English	1 week

## Courses Under Development in NACC (8)

No.	Country	Centre	STP Title	Area	Language	Course Duration
1	Canada	The ASI Institute, a division of Aviation Strategies International	Fundamentals of Air Transport Industry for Decision Makers	Air Transport	English	1 week
2		The ASI Institute, a division of Aviation Strategies International	Cyber Security Attack and IT Failure Recovery Management	Aerodromes	English	1 week
3	Dominican Republic	Academia Superior de Ciencias Aeronáuticas (ASCA)	Gestión de implementación de la PBN (Management implementation GNP)	Air Navigation Services	Spanish	1 week
4	Cuba	Centro de Adiestramiento de la Aviación (CAA)	Factores humanos en el mantenimiento e inspección de aeronaves. (Human Factors in aircraft maintenance and inspection.)	Flight Safety and Safety Management	Spanish	1 week
5	Mexico	Centro Internacional de Instrucción de Aeropuertos y Servicios Auxiliares (CIIASA) - Ingeniero Roberto Kobeh González	Proceso de certificación de aeródromos: Fundamentos (Aerodrome certification process: Fundamentals)	Aerodromes	Spanish	1 week
6	Jamaica	Civil Aviation Authority Training Institute (CAATI)	Check Airman SOPs For Licence holders	Flight Safety and Safety Management	English	1 week
7	Trinidad and Tobago	Trinidad and Tobago Civil Aviation Authority - Civil Aviation Training Centre	Aeronautic maintenance Inspection	Capacity Building	English	1 week
8	El Salvador	Instituto Centroamericano de Capacitación Aeronáutica (ICCAE) de COCESNA	Entrenamiento Recurrente en condiciones de fuego vivo y a presión a bomberos aeronáuticos . (Recurrent training for aeronautics firefighters with Live and under pressure fire situations)	Aerodromes	Spanish	1 week



## Main Achievements in NACC



**16** TRAINAIR PLUS Members



**TRAINAIR**  
PLUS™



**878** trainees completing  
ICAO courses



**87** deliveries of ICAO courses




**21** ICAO courses developed  
through the TPP network



**8** ICAO courses under  
development

# ICAO Training Portfolio (1)

## General

1. Fundamentals of the Air Transport System 
2. Approval Course Civil Aviation Authority Senior and Middle Managers Training Course (SMMTC)
3. International Air Law Course






## Safety Audit and Inspection

1. Universal Safety Oversight Audit Programme Computer-based Training (USOAP CBT) 
2. ICAO Government Safety Inspector Operations – Air Operator Certification Course (GSI-OPS-18700)
3. ICAO Government Safety Inspector Personnel Licensing Course (GSI-PEL-18710)
4. ICAO Government Safety Inspector Airworthiness – Air Operator and Approved Maintenance Organization Certification

## Economics

1. Air Transport Forecasting Course
2. Air Transport Statistics Course
3. Air Transport Economics and Regulation course (ECCAIRS) End User Course

## Training Competency Development

1. Validating Competency-based Training (VCT) – EN/SP 
2. Post-Training Evaluation (PTE) Course - EN/SP
3. Post-Training Evaluation (PTE) On site OJT
4. Managing Aviation Training Intelligence (MATI) - EN
5. Training Developers Course (TDC) - EN/ SP 
6. Training Instructors Course (TIC) Part 1 
7. Training Instructors Course (TIC) Part 2 – EN/SP 
8. Training Managers Course (TMC) - EN/SP 
9. Training Needs Analysis (TNA) OJT

## ICAO Training Portfolio (2)

### SMS

1. Safety Management for Practitioners (SMxP)
2. Aerodrome Safety Management Incorporating PANS-Aerodromes
3. Online Safety Management Training Course



### Aerodrome

1. Management Certificate in Civil Aviation
2. Wildlife & Habitat Management at Aerodromes - Control & Reduction (Part One)
3. ICAO-ACI Management of Airport Security
4. ICAO-ACI Aerodrome Certification Course
5. ICAO-ACI Course in Airport User Charges

### Personnel Licensing

1. Personnel Licensing (PEL) System (Part 1)
2. Personnel Licensing (PEL) System (Part 2)



### ANS - PBN

1. Performance-Based Navigation (PBN) Operations
2. Performance-Based Navigation (PBN) - Airspace Design  
Performance-Based Navigation (PBN) Overview Course
3. Performance-Based Navigation (PBN) for Pilots Course

### Others

1. Dangerous Goods Part 1 – Using the Technical Instructions for the Safe Transport of Dangerous Goods by Air
2. Control of the Authenticity and Validity of Travel Documents at Airport Borders - Level 1
3. ECCAIRS - European Co-ordination Centre for Accident and Incident Reporting Systems (ECCAIRS) Technical Course
4. ECCAIRS - European Co-ordination Centre for Accident and Incident Reporting Systems (ECCAIRS) End User Course



# ICAO Training Portfolio (Searching)

<https://www.icao.int/Training/Pages/default.aspx>

## GLOBAL AVIATION TRAINING

Welcome to ICAO's Global Aviation Training (GAT) homepage

The Global Aviation Training Office (GAT) aims to lead Human Resources Development strategies established by Member States and the aviation community to ensure they have access to a sufficient number of qualified and competent personnel to operate, manage and maintain current and future air transport system at prescribed international standards for:



SEARCH FOR ICAO TRAINING COURSES

## Training Catalogue

Training Area:  Language:

Level:  Delivery:

Keyword:  Region:

- ☐ Show only training courses with scheduled sessions.
- ☐ Show courses with group pricing structure for Civil Aviation regulatory bodies.

Search Reset

Showing 1 to 48 of 48 entries

Details	Course Title	Language	Duration - week(s)
	Aerodrome Firefighters Breathing Apparatus Wearer	English	2
	Aerodrome Inspection	English	1
	Aerodrome Safety Management Incorporating PANS-Aerodromes	English	1
	Aircraft Fire Fighting and Rescue Operation	Chinese	1

## Aviation Training Intelligence (ATI)

“

An integrated information structure required for conducting up-to-date the needs-based aviation training activities.



ICAO

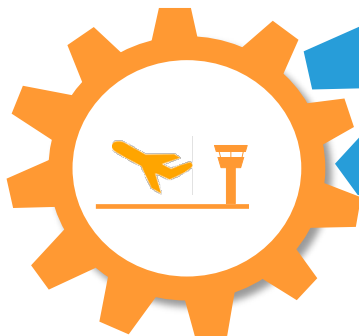
AVIATION TRAINING  
INTELLIGENCE™

A set of tools and methodologies used for strategic and operational planning, business implementation, course development and delivery, according to diverse data sources to make optimal aviation training decisions.

”

## Why do we need Aviation Training Intelligence™

Allow successful  
strategic planning needs



Support the Aviation  
Industry



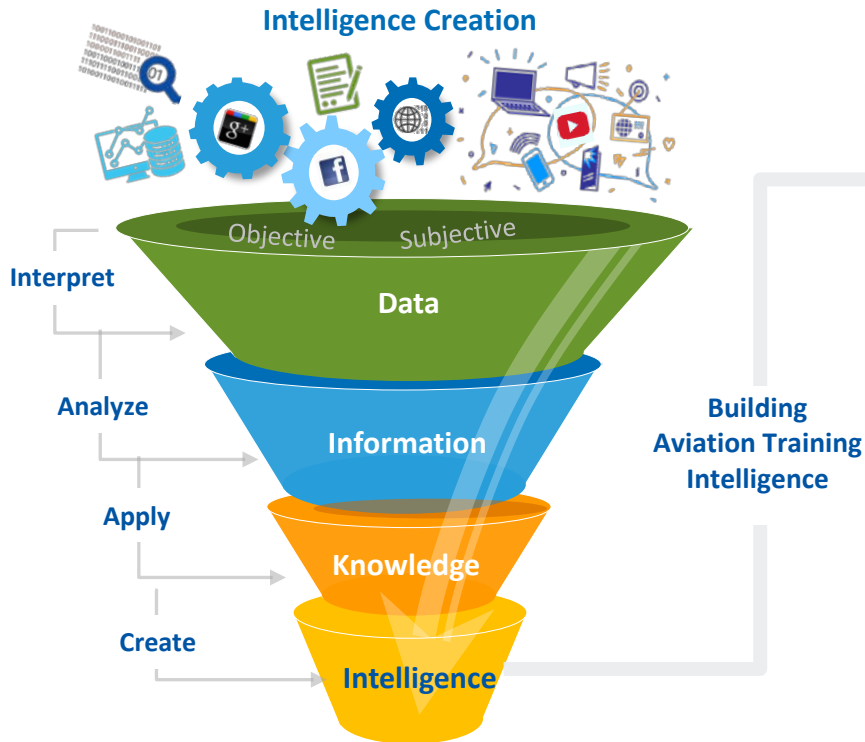
Align ICAO training policy with  
current implementation



Develop training  
courses meeting air  
transport needs



# How is ATI™ created ?



## Essential Component (EC: 1)

### iSTARS



Provides a framework for **data and intelligence** needed for **decision-making and the prioritization** of ICAO programmes :

- ✈ **Universal Safety Oversight Audit Programme (USOAP)**
- ✈ **Aviation Safety Implementation Assistance Partnership (ASIAP)**
- ✈ **Global Aviation Training (GAT)**

## Essential Component (EC: 2)

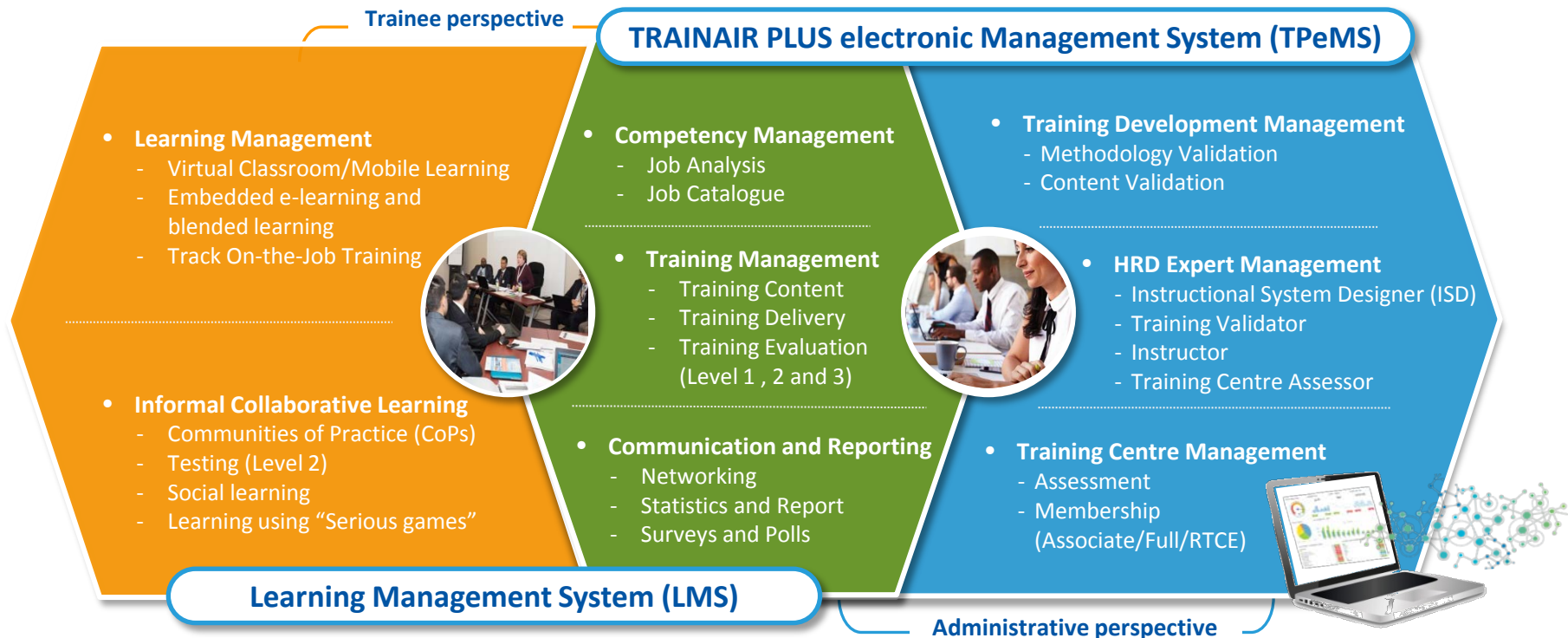
### ICAO DATA +



Provide accurate, reliable and consistent aviation data so that States, international organizations, aviation industry, and other stakeholders can:

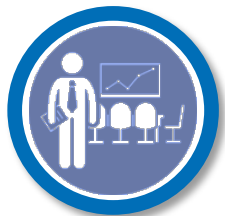
- make better projections;
- control costs and risks;
- improve business valuations; and
- benchmark performance.

## Essential Component (EC: 3)



# Essential Component (EC: 4)

## Training Needs Analysis (TNA)



## TNA Report

Final Report		
<b>Training Needs Analysis Report</b>		Completed: 17/10/2017
<p>This report reflects the results of data gathered and analyzed through a guided process based on the ICAO TRAINAIR PLUS methodology of job task analysis, and performance gap analysis to identify training needs and determine training solutions. The guidance provided in the ICAO Training Needs Analysis (TNA) web-based application is consistent with the State aviation training and capacity-building roadmap, and the organizational review, in order to yield the most targeted results for human resource and aviation professional development. Results of the TNA and training recommendations for specific jobs and professionals compose the content of this report and belong to the responsible organization.</p>		
<b>Training Needs Analysis</b>		
<b>Organization</b> Rolando Tamayo	<b>State</b> Dominican Republic	<b>Date Started</b> 17/10/2017
<b>Needs Analysis Title</b> TNA 1 Test	<b>What is the problem to investigate?</b> Aerodrome inspectors are not able to execute inspections procedures as established in Aerodrome Operation Manual	<b>Date Completed</b> 17/10/2017
<b>What are the consequences of NOT addressing this problem?</b> Under performance, cannot meet KPIs	<b>Which PRIMARY document must be consulted to understand the problem?</b> ICAO audit report	<b>Other Documents</b>
<b>Organization</b> About the Organization		
<b>When was THIS organization established (year)?</b> 20	<b>What is the organizational model?</b> State / Non-profit	<b>When was the Organizational Review conducted?</b> 2013
<b>Organizational Review was conducted by?</b> Internal Experts	<b>Reviewed by (External)</b>	<b>Result of the Organizational Review</b> Organizational structure adequately 1 main activities
<b>Aerodrome</b> of this department? Aerodrome operations surveillance		
<b>Indicator is affected by the problem identified?</b> No of detected findings		

# Essential Component (EC: 5)

Aviation Training & Education Directory (ATED)

Aviation Career Path Portal (ACPP)

Training Centres

Education Institutions

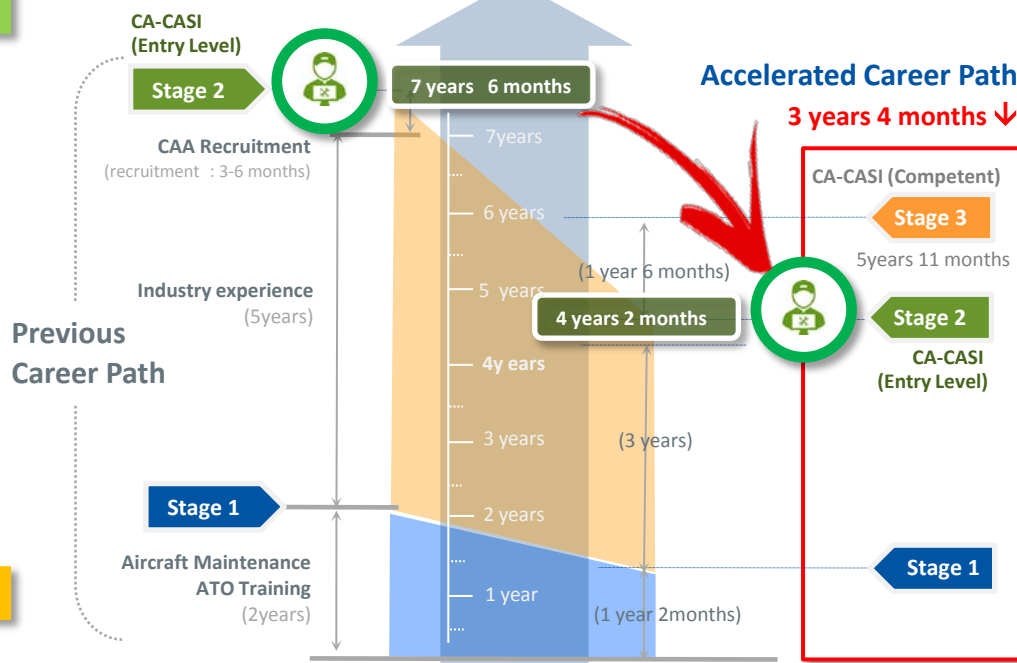
NEW 2017 PLATFORM!

Expand your reach across the global community of aviation professionals

Training Courses

Programmes

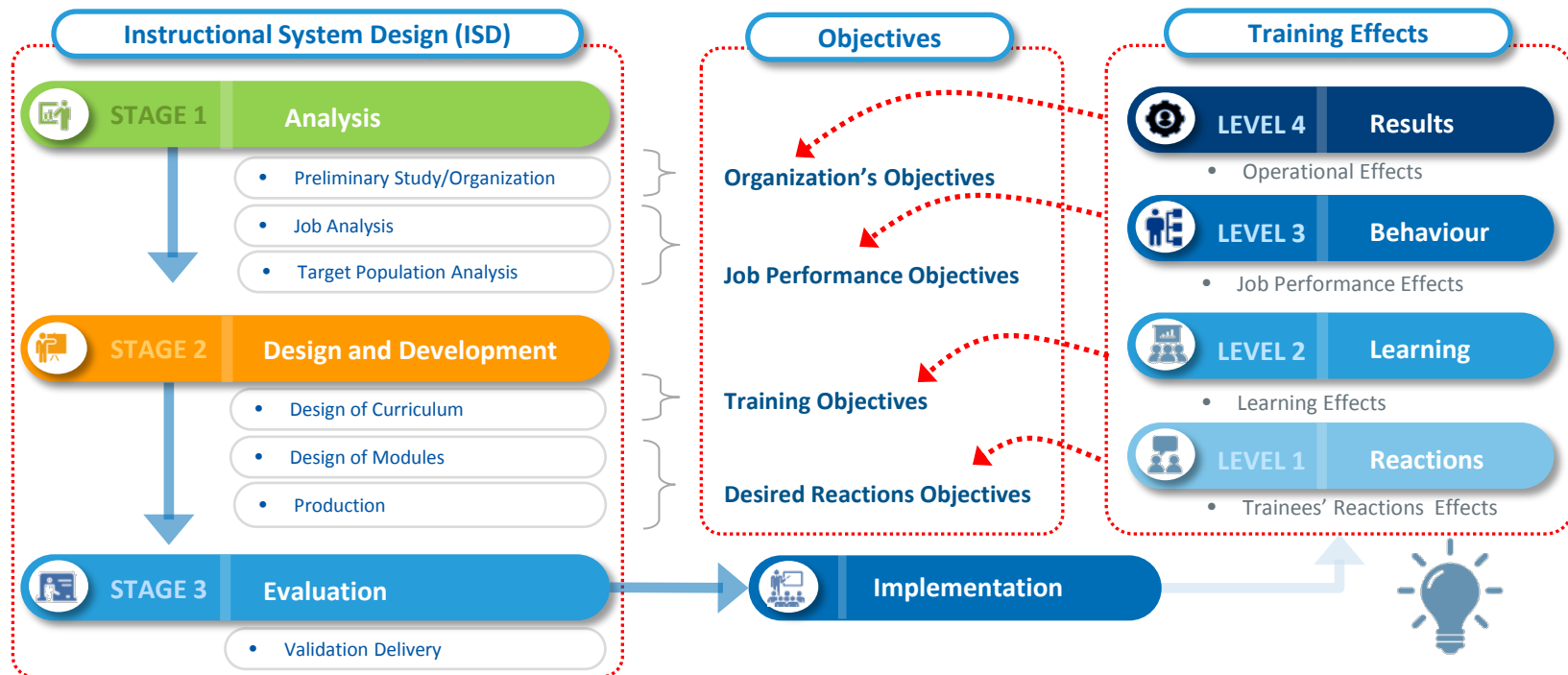
Example : Airworthiness Civil Aviation Safety Inspector





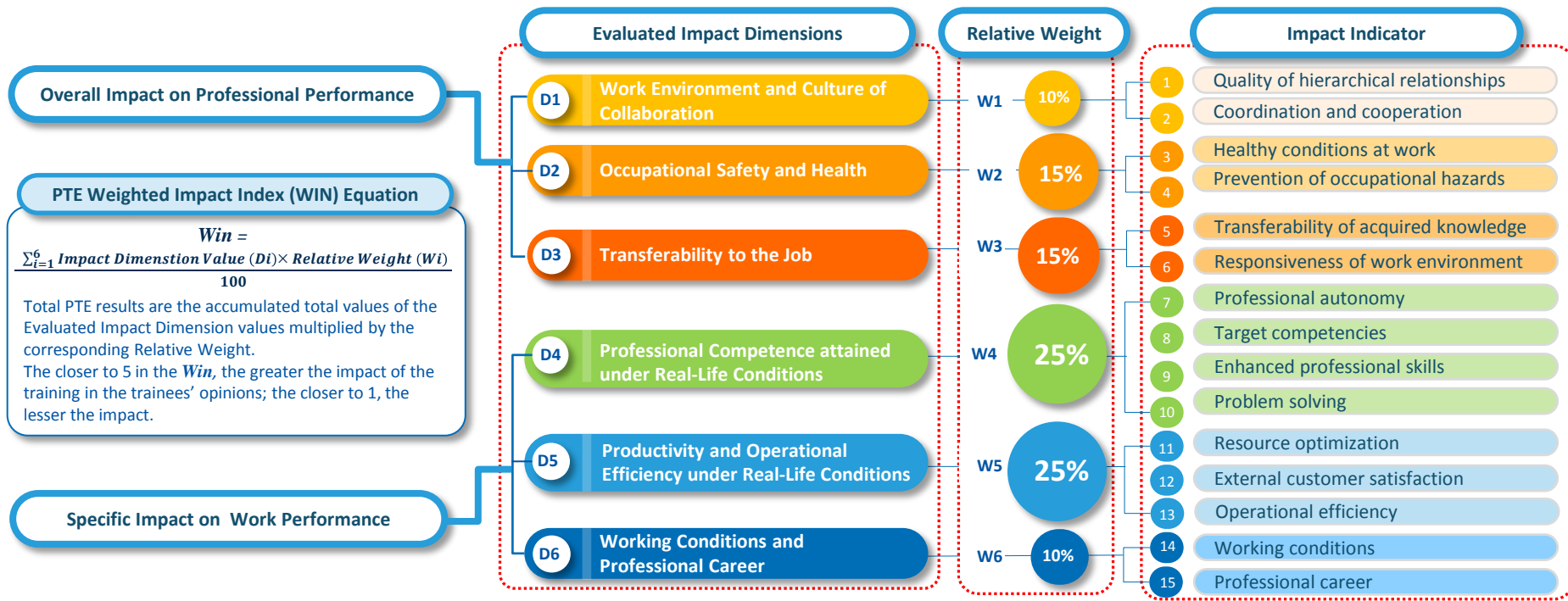
# Essential Component (EC: 6)

## TRAINAIR PLUS Methodology - Instructional System Design (ISD)



# Essential Component (EC: 7)

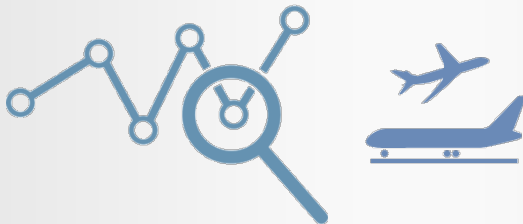
## Level 3 Post Training Evaluation (L3 PTE) Methodology



## Essential Component (EC: 8)

### Civil Aviation Authority

Strategic document that include the fundamental information about aviation in the State upon which the Roadmap will be developed, such as:



### Master Plan (CAAMP)

- a list of existing aviation activities in the State;
- a list of planned activities in short; mid-/long-term;
- existing aviation infrastructure;
- existing aviation service providers;
- planned changes in aviation infrastructure;
- planned changes in the aviation market;
- the institutional system of the State;
- expected changes affecting the institutional system of the State;
- State's aviation strategies;
- State's aviation development plans; and
- State's performance targets (safety, security, environment, state's objectives, etc.).

## Expecting Benefits



Aviation data-driven analysis and instructional system design (ISD)



Application of standardized training development and delivery methodology



Implementation of training through ICAO integrated system platform



Capacity improvement and connectivity through TRAINAIR PLUS network





TRAINAIR  
PLUS  
FULL MEMBER

## Professional network

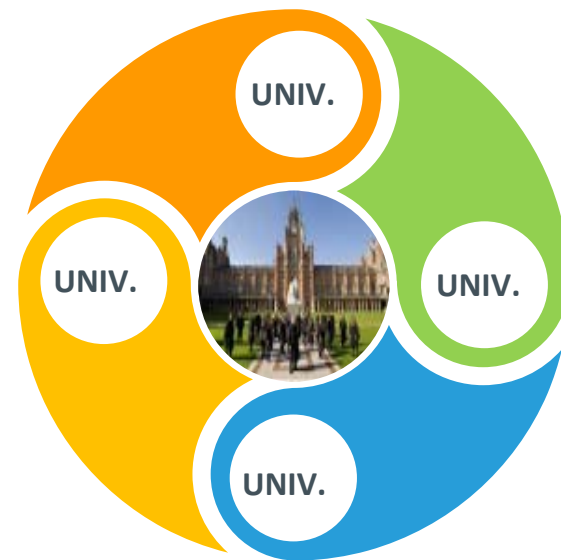


Learning Itineraries  
Host F-to-F Modules  
Franchise Model  
Credits Recognition



TRAINAIR  
PLUS  
CORPORATE

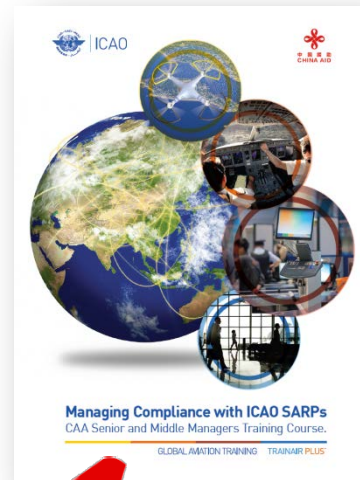
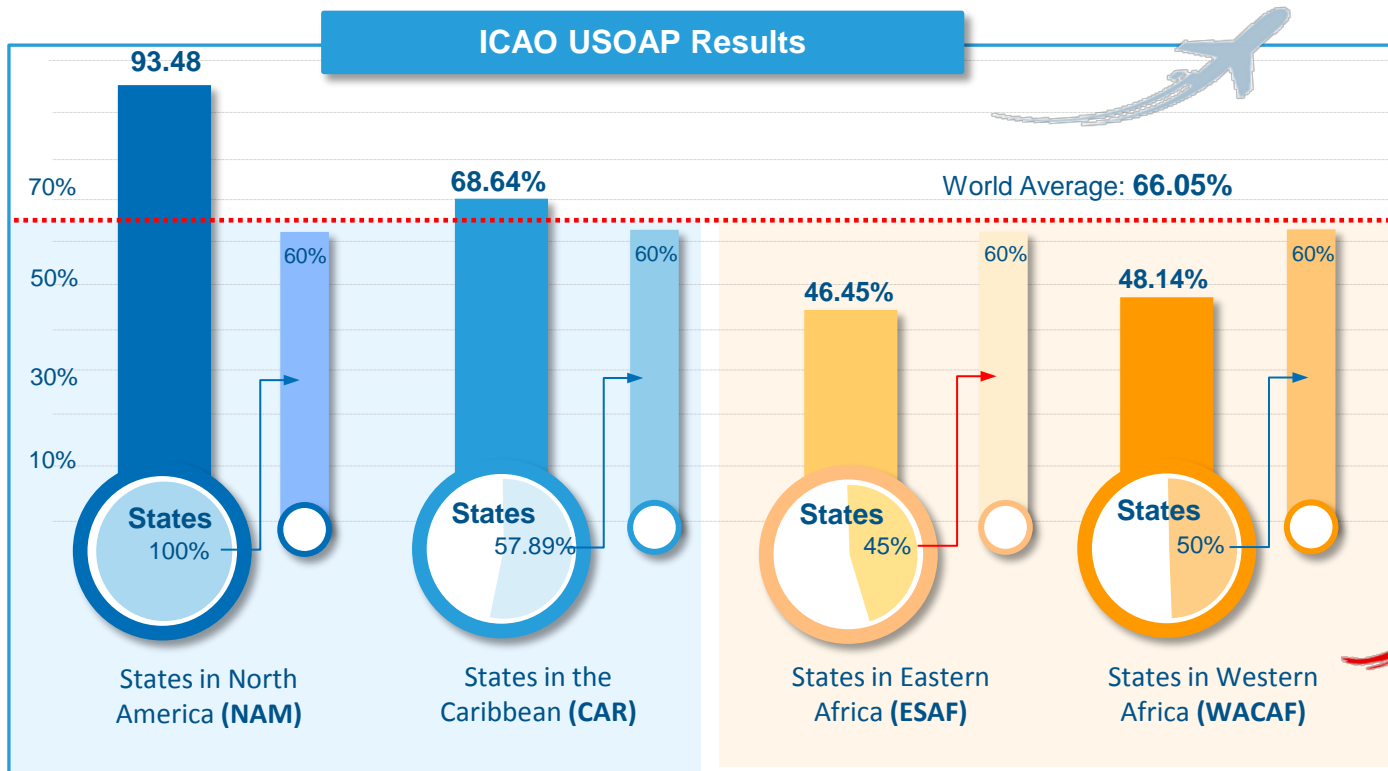
## Academic network







# Challenges in the Implementation of SARPs



Priority States of lowest compliance

# CAA Senior and Middle Managers Training Course (CAA SMMTC)

## Course goal

This course aims to enable CAA senior and middle managers to effectively plan, manage and assess the implementation of ICAO SARPs in their States.

## Course objectives

1. Developing the ICAO SARPs Implementation Plan
2. Managing the ICAO SARPs implementation
3. Assessing the ICAO SARPs implementation

## Target Audiences

Senior and middle managers of State's CAA in charge of SARPs implantation



## Course Format

- **Mode** : Blended (online + classroom)
- **Duration** : 1 week / 5days
- **Language** : Spanish, English, French

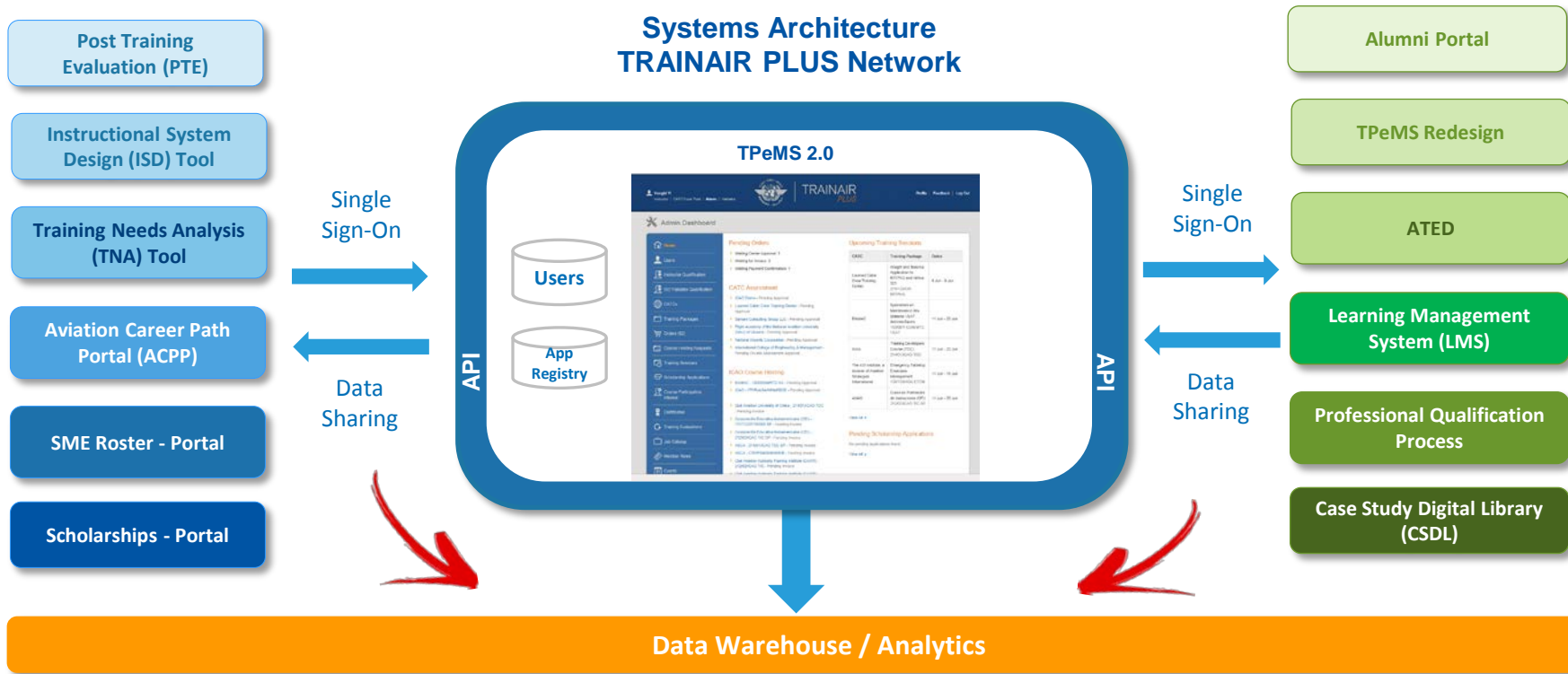
## Delivery Projections

- **Deliveries** : 20 sessions  
\* first : 30 Jul – 3 Aug. 2017  
Final : 28 Jan. – 1 Feb. 2018
- **Trainees** : 500 audiences  
\* A total of 500 scholarships will be offered.

\* A projected 80 Member States are expected to benefit from this training. Invitation letters will be disseminated to targeted States.

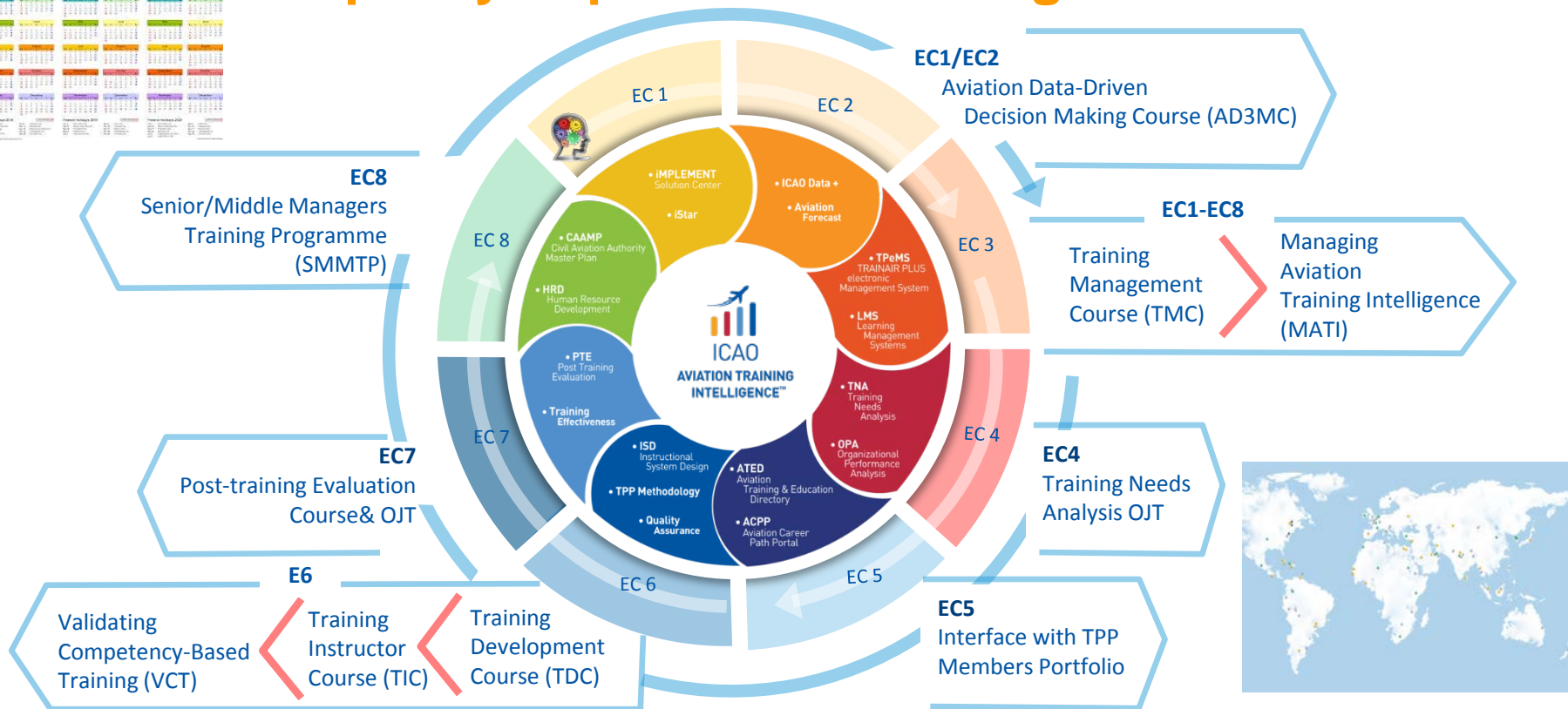
# Training Intelligence Integrated System

## Systems Architecture TRAINAIR PLUS Network



The image displays three 12-month calendars for the years 2018, 2019, and 2020. Each calendar is presented as a grid of 12 rows (one for each month) and 7 columns (one for each day of the week). The years are prominently displayed at the top of each respective calendar. The calendars are color-coded by month: January (blue), February (light blue), March (green), April (yellow), May (orange), June (red), July (purple), August (pink), September (light green), October (light blue), November (light orange), and December (light purple). The dates are written in a small, black font within each cell of the grid. The calendars are arranged horizontally, with 2018 on the left, 2019 in the middle, and 2020 on the right.

# Capacity Improvement through ATI™





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## GLOBAL AVIATION TRAINING

TRAINAIR PLUS™

