

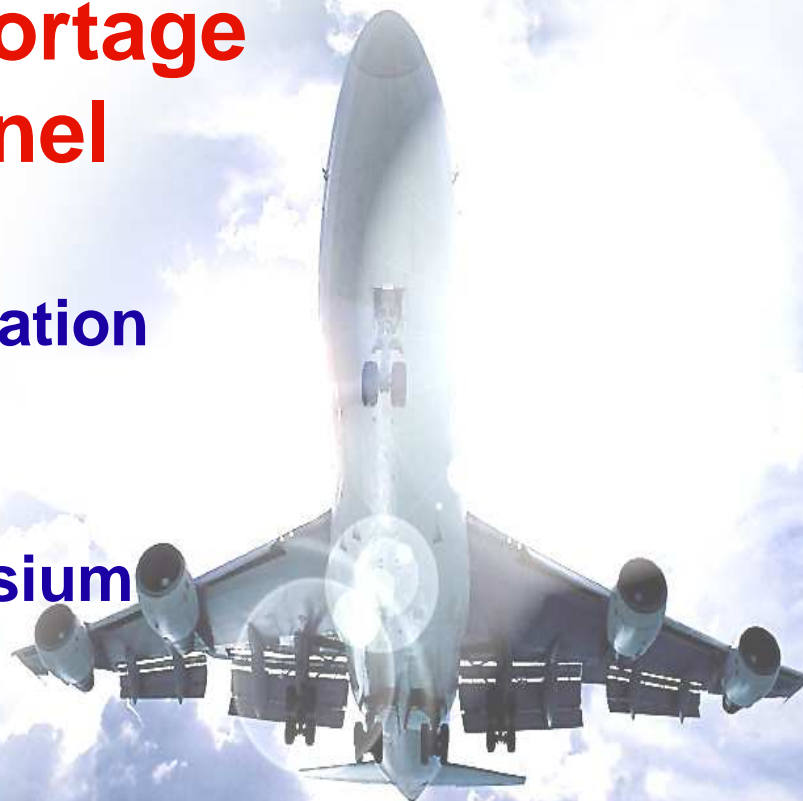


to represent, lead and serve the airline industry

Challenges Ahead- shortage of licensed personnel

**IATA Training and Qualification
Initiative - ITQI**

FIRST MENA MPL Symposium
Aqaba, Jordan



Speaker



- Capt. Chris Schroeder, MSc, MBA, Dipl
- Head of Global Flight Operations, IATA
- ITQI Ops Project Lead
- IEMS Ops Project Lead
- 20 years flying exp. with 13000 hours
- B 707/747, A320,332,343,345
- America, UK, Africa, Asia, Middle East



Mission Statement

- **SAFETY**
 - Safety is paramount and remains our priority number one
 - The shortage of qualified pilots and technicians could have a negative impact on safety
- **GROWTH**
 - The shortage of qualified licensed personnel could affect sustainable growth hence have a severe commercial impact on all sectors of the aviation industry.
- **QUALITY & STANDARDS**
 - In times of high demand there is a potential risk for a drop in training - and quality standards
- **DEMAND & SUPPLY**
 - It is important to quantify and to balance the demand and the supply of licensed personnel on a regional as well as on a global level in all segments of the aviation industry, with sustained quality and no compromise to safety and quality.

Guenther Matschnigg
Senior Vice President, SO&I



Background

- The aviation industry has realized that there will be a global shortage of engineers, licensed mechanics as well as pilots
- The aviation industry estimate a fleet growth of 17000 aircraft by 2020.
- In times of high training demand, training quality is at stake and consequently negative impact on flight safety.
- Variations in training standards worldwide add to the problem.
- Quality level of key personnel must be maintained.
- Risks for delayed aircraft introductions and missed opportunities for growth and ROE.



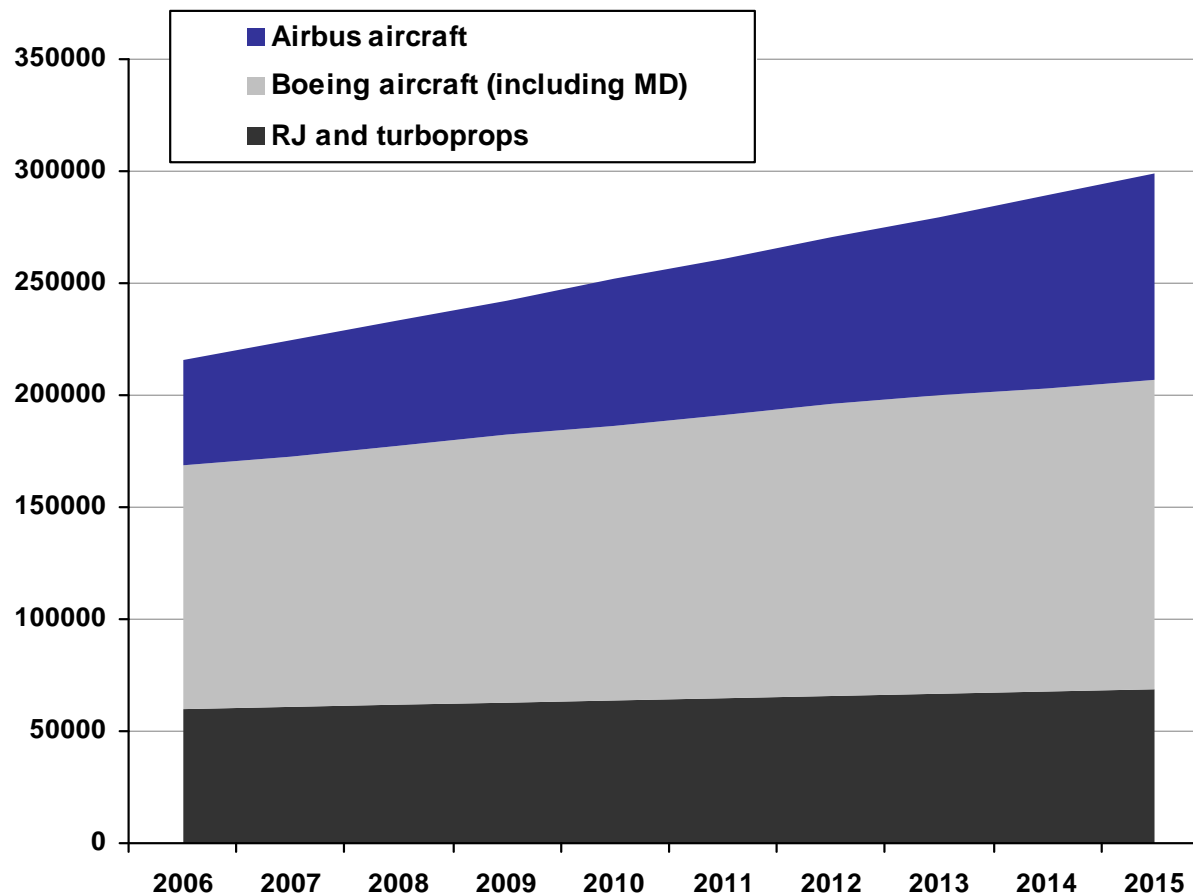
ITQI

Based on this background the IATA Board of Governors has endorsed to launch the IATA Training and Qualification Initiative (ITQI) to develop recommendations for meeting the training needs for pilots, mechanics and engineers with no compromise to safety and quality.

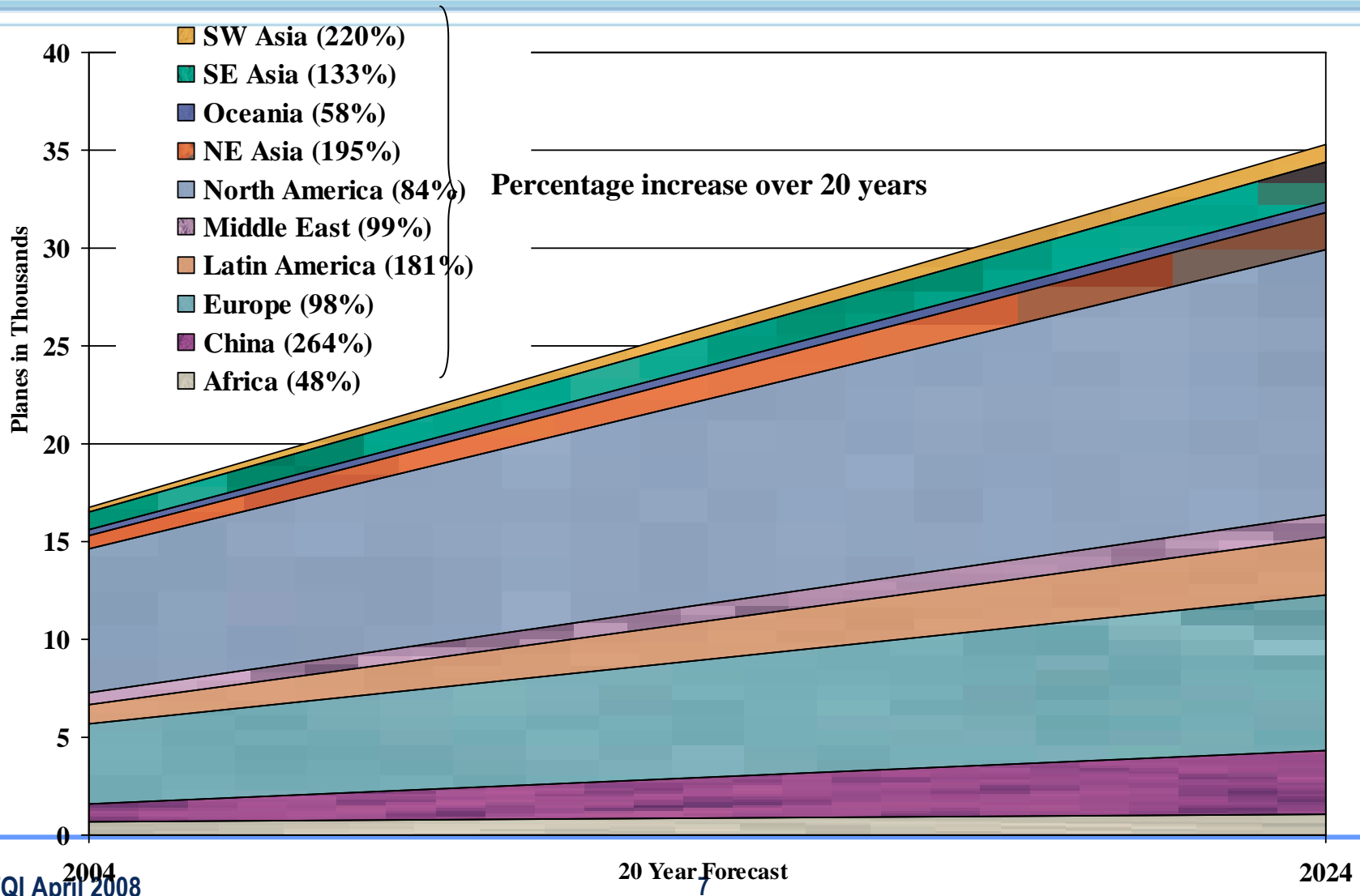
The fact



Number of pilots



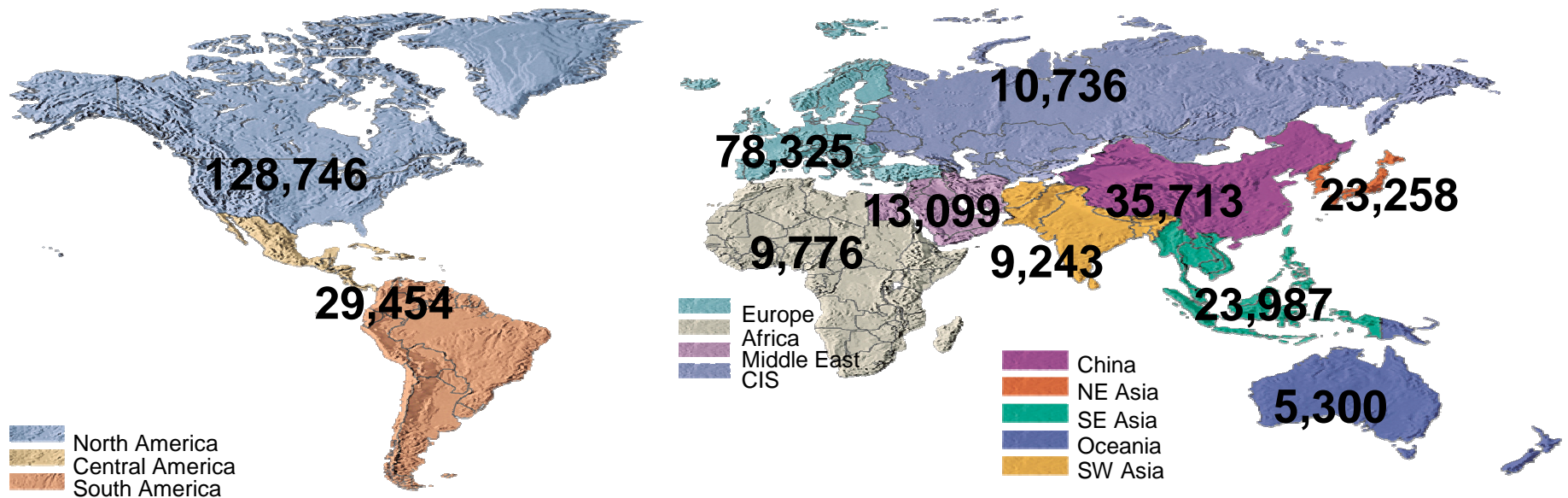
New pilot requirement over the evaluated period of 19000 new pilots per year including requirement for pilot attrition



ITQI April 2008

Source - Boeing's 2005 Current Market Outlook

Explosive fleet growth sparks pilot demand



Numbers on map represent the total pilots needed to support *new* airplane deliveries between 2005-2024 (Consolidated Boeing & Airbus figures)



Training Capacity Shortage

Fleet growth and fluctuation will require approximately **235,000** additional pilots until 2020

This equals to more than **19000** pilots annually.

Air travel resilient to external shocks

World annual traffic
Trillion RPKs



+28% in
air travel
in last 5
years

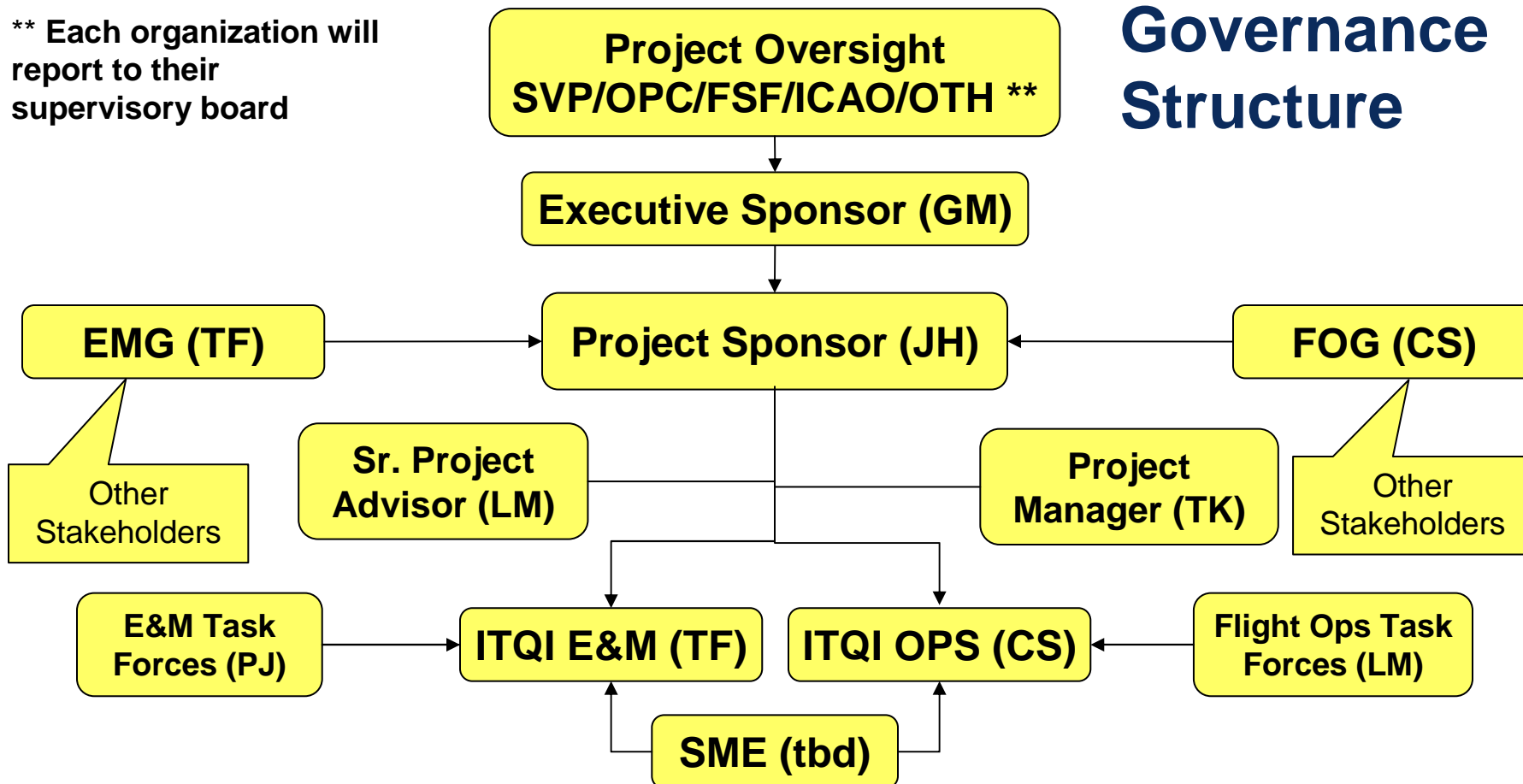
Source: ICAO, Airbus estimate for 2006



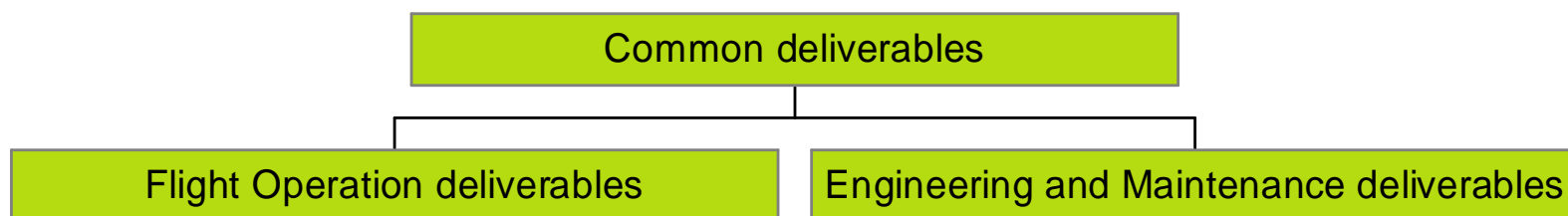


Governance Structure

** Each organization will report to their supervisory board



ITQI Deliverables





Common Deliverables

- Collect data and quantify the need and cost
- Make a cost benefit analyses
- Safety impact analysis
- Make a global survey of industry competitiveness and attractiveness, including regional differences
- Identify solutions to mitigate the shortage
- Social aspect of shortage
- Develop a proposal for renewed training and qualification process
- Develop a communication strategy

ITQI Common PROJECT LEAD

KEY STAKEHOLDERS

Executive Project Advisor

Solutions & Deliverables			
Global Survey	Safety Impact	Solutions	Communication
Lars Mydland	Lars Mydland / FSF	Lars Mydland	Lars Mydland
<ul style="list-style-type: none"> ▪ Make a global survey of industry competitiveness and attractiveness, including regional differences ▪ Collect data and quantify the need and cost ▪ Make a cost benefit analyses ▪ Social aspect of shortage 	<ul style="list-style-type: none"> ▪ Safety impact analysis 	<ul style="list-style-type: none"> ▪ Identify solutions to mitigate the shortage • Develop a proposal for renewed training and qualification process 	<ul style="list-style-type: none"> ▪ Develop a communication strategy
<u>KEY DELIVERABLE:</u>	<u>KEY DELIVERABLE:</u>	<u>KEY DELIVERABLE:</u>	<u>KEY DELIVERABLE:</u>

Flight Operations Deliverables

- Review the applicability of existing regulations
- Develop global standards and best practices for:
 - MPL implementation
 - instructor qualification
 - FSTD qualification
 - approval criteria for training providers
 - pre-selection criteria for pilots
 - T/R and recurrent training
- Transition into Competency based training

ITQI OPS PROJECT LEAD

KEY STAKEHOLDERS

Executive Project Advisor

Solutions & Deliverables

MPL implementation	Regulatory Framework	FTD Standards ATO recognition	Selection Criteria Recurrent training	Regional Operations	Corporate Operations
Dieter Harms	Otto Krueger	Dieter Hass	Dieter Harms	Earl Weener	Pat Andrews
<ul style="list-style-type: none"> •Industry education campaign •MPL Go Team support •Best practices for global MPL impl. •ATPL exam standards (Alteon) 	<ul style="list-style-type: none"> •Review existing ICAO & key national regulations for their applicability •Participate in new EASA FCL proposal 	<ul style="list-style-type: none"> •Revision of the IATA FSTD Performance Manual 	<ul style="list-style-type: none"> •Document best practises for pilot candidate preselection 	<ul style="list-style-type: none"> •Best practices for selection and development of flight crew from diverse sources •Strategies to ensure adequate flight instructor supply •Best practices for continuing development of entry level flight crew 	<ul style="list-style-type: none"> •Identification of qualification and competences essential to corporate operations •Best practices for selection and development of flight crew for corporate operations
		Paul Lamy	Mike Varney		
		<ul style="list-style-type: none"> •Establish global mutual recognition of ATO's 	<ul style="list-style-type: none"> •Document best practises for T/R and recurrent training (RO/RL/renewal) •Global Instructor Qualification 		
<u>KEY DELIVERABLE:</u> Establish best practices for the globally harmonized implementation of MPL and improve industry knowledge	<u>KEY DELIVERABLE:</u> Complete review of key national & ICAO regulations that pose a stumbling block and prepare a catalogue of suggestions for change	<u>KEY DELIVERABLE:</u> Update the IATA Flight Simulation Performance & Data Requirement Manual. Establish an industry wide certification standard for ATO's.	<u>KEY DELIVERABLE:</u> Define a global standard for pilot selection criteria both for ab-initio and qualified pilots Define a global standard for T/R and recurrent training (RO/RL/renewal)	<u>KEY DELIVERABLE:</u>	<u>KEY DELIVERABLE:</u>

Engineering and Maintenance Deliverables

- Review the applicability of existing regulations/requirements
- Develop global standards and best practices for:
 - qualification requirements for E&M training syllabi and training devices
 - recruitment and selection criteria
 - training providers certification standards
 - E&M training requirements
- Transition into Competency based training

ITQI E&M PROJECT LEAD

KEY STAKEHOLDERS

Executive Project Advisor

Solutions & Deliverables			
Qualification Requirements	Training Devices & Syllabi	Certification Standard for Training Providers	Staff Selection & Assessment Criteria
Hartley Elder	Hank Schaeffer	Maged Habashi	Peter Janssen
<ul style="list-style-type: none"> •Review existing national requirements •Develop competency based approach •Establish best practices for global implementation 	<ul style="list-style-type: none"> •Develop standards for new technology training devices •Develop e-Learning concept 	<ul style="list-style-type: none"> •Review existing national requirements •Develop global standards for training providers 	<ul style="list-style-type: none"> •Selection criteria •Standards •Requirements •Best Practices
<p>KEY DELIVERABLE: Establish best practices for global implementation of competency based qualification requirements</p>	<p>KEY DELIVERABLE: Develop standards for new technology training devices and e-learning</p>	<p>KEY DELIVERABLE: Develop global standards for training providers</p>	<p>KEY DELIVERABLE: Define a new global standard for E&M staff selection for new and qualified personnel</p>

Deliverables					
Problem / Impact Analysis	Qualification Requirements	Training Devices & Syllabi	Cert. Standard for Training Providers	Staff Selection & Assessment Criteria	
	Element B1	Element B4	Element B2	Element B3	
	Hartley Elder	Hank Schaeffer	Maged Habashi	Peter Janssen	
KEY DELIVERABLE:	KEY DELIVERABLES:	KEY DELIVERABLES:	KEY DELIVERABLES:	KEY DELIVERABLES:	
2008	Conduct market survey	Complete gap analysis of existing requirements / regulations	Complete gap analysis of training devices	Complete gap analysis of certification standards	Complete gap analysis of selection criteria
2009		Complete guidance material & working paper for ICAO	Complete first draft of best practices and guidance material	Complete development of certification standards	Complete development of selection criteria / best practices guide
2010		Achieve ICAO ANC approval	Complete development of guidance material & implem. concept	Develop audit scheme	Implement regionally

Training & Qualification Status

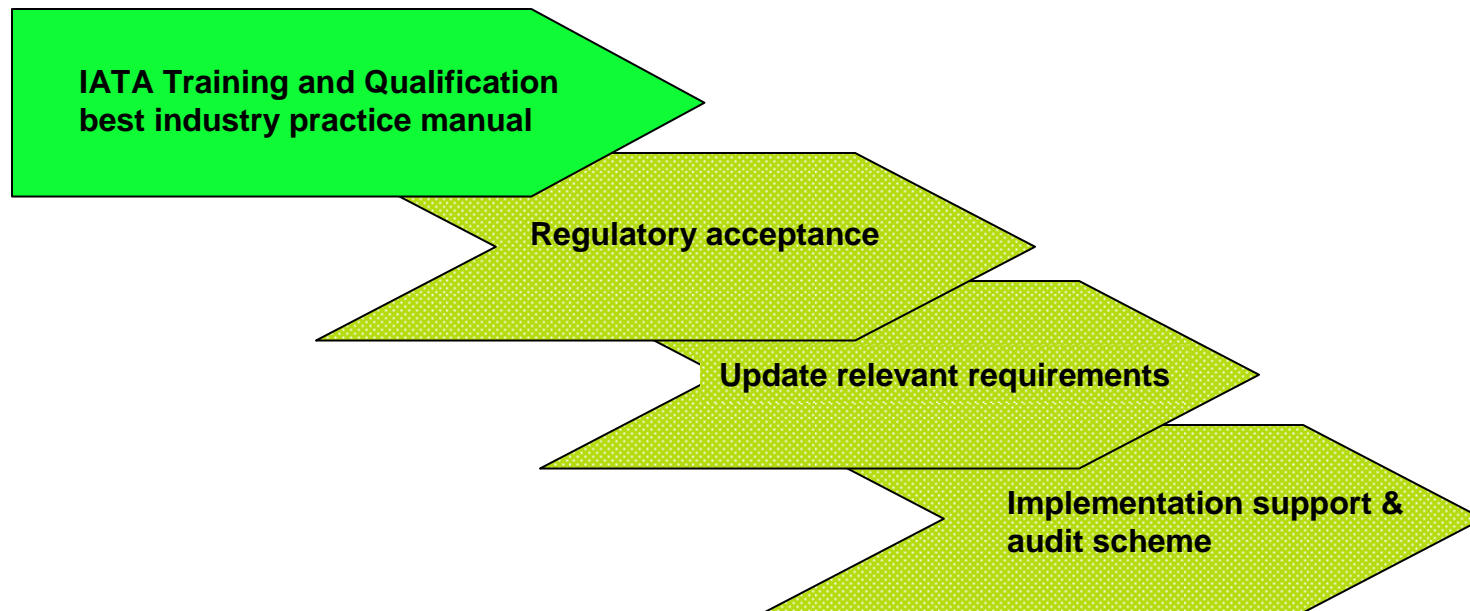
Topic	Overview	Questions - Goals	Objective	Timeline
Training providers	1100 providers		ITQI standard completed & implemented	2010
Simulator manufacturers	Major manufacturers of flight simulators known (CAT) IATA FTSD standard in development			
Existing certification trainings	Europe - CAT A, BI & BII aircraft mechanics US - ?			
Training standards	US Standard for mechanics ICAO Standard for ATPL & MPL	ICAO Standard for engineers?		
Airline recruitment processes which are recognized as being successful	High reputation as an airline employer: <ul style="list-style-type: none"> ➤ Fleet growth ➤ Career perspectives ➤ Low staff turnover ➤ Competitive salaries ➤ Personal treatment during entire recruitment & development process ➤ Team building and continuous learning programmes 	Special advertisements in universities		



Industry Stakeholders

- ICAO, FSF, IFALPA, EASA, Transport Canada, CASA, NCAA, ATA,
- JAL, CAL, EVA, SIA, MES, SAS, LH, ANA, Delta, IB, Fedex, AF, SAA, KLM, Qantas,
- Airbus, Boeing, ATR, Embraer, Bombardier
- LFT, LTT, CAE, Alteon
- MSI, Thales

Final ITQI outcome and spinoffs



Project phases

Summary

- ITQI
 - A global and collaborative initiative to mitigate the threats inherent to the global shortage of licensed personnel.
 - Well underway, has secured resources and buy-in from all segments of the aviation industry,
 - to ensure SAFETY
 - to create awareness among the industry, governments and regulators
 - to develop global standards and harmonization needs
 - to work on solutions

- Open for all industry stakeholders