

# Egyptian Aviation Academy



## Strategic Planning For the Current and Future African Aviation Professionals

**Presented by :**  
**AbelKarim Elsayed**  
**Dean of EAA / CAMTC**

# INTRODUCTION



**Before looking to the future , We should answer an important question as a basis for the approach and methods. This question is :**

**Do we look to future just to predict and anticipate how the future will look like and try to cope with the anticipated concepts of future ?**

**or**

**We look to the future to formulate and shape it in order to build our future .**

**The positive vision for the future is based on the importance of participation in establishing and building the future .**



# INTRODUCTION

Adopting the positive view in our looking to the future and planning to participate in building our future means the selection of **strategic thinking**.

**Strategic Thinking** focuses on access to the rational imaginary target and subject, and take into account a comprehensive view of the surrounding environment.

It studies all the expected elements of success as well as principles, values , goals, and resources .

**Strategic thinking** considers all the skills necessary to achieve the objectives in good quality and efficiency to reach the highest degree of safety based on the methodology of Scenario planning.



# Organizational Development



**Organizational Development as a concept has passed through three phases reflected the strategic thinking of each stage of the evolution of thoughts as follows :**

**1 - *Bureaucratic concept developed by Max Weber in 1947***

**It is a concept based on identifying the authority lines and sequencing in command within a hierarchy manner of fixed procedures to determine the ways of work .**



# Organizational Development

## 2 - Management by objectives and results developed by Peter Drucker in 1964



This concept represented a revolution and breakthrough in the development of behavioral sciences and organizational behavior in the administration and through the use of the principles of management by objectives.

## 3 - Finally, the concept of learning organizations developed by Peter Sang 1990

The Learning organization is an organization in which individuals use learning to reach the goals.

This concept represents a fundamental turning point in the activities of organizations, This concept represents a continuous source of learning for development .



# Properties of our ERA

**We must consider the properties of the current era:**



- **Just continue to do what we are used to do without developing or updating may be a risk in today's rapidly changing world.**
- **We must focus on performance , learning , development, creativity and innovation, not just to achieve the objectives.**
- **If the learning and training approach is vital and important for various fields of life , it is more and more necessary, for the field of aviation, which is the most obvious mirror that reflects technological progress and modernization.**

# Properties of our ERA

**While the first decade of the twenty-first century is approaching its end and after the evolution of the concept of learning organizations since more than two decades, we believe that the learning only is no longer enough for organizations in the pursuit of excellence**

**Organizations should strive for excellence trying to adopt ways that makes learning faster, deeper and more effective in operations .**



# Properties of our ERA



- **It is necessary for training organizations to follow roads and paths focusing to provide aviation community with efficient and effective products and services achieving the desired progress .**
- **The organizations that look for efficiency and effectiveness should focus on increasing the safety and security benefiting of distance learning and electronic learning technologies**





# Concept of Technology



- **Technology can be viewed as the tools and methods that are used for the purpose of the application of science, to complete human capabilities, and to meet the needs arising under the environmental conditions and historical stage .**

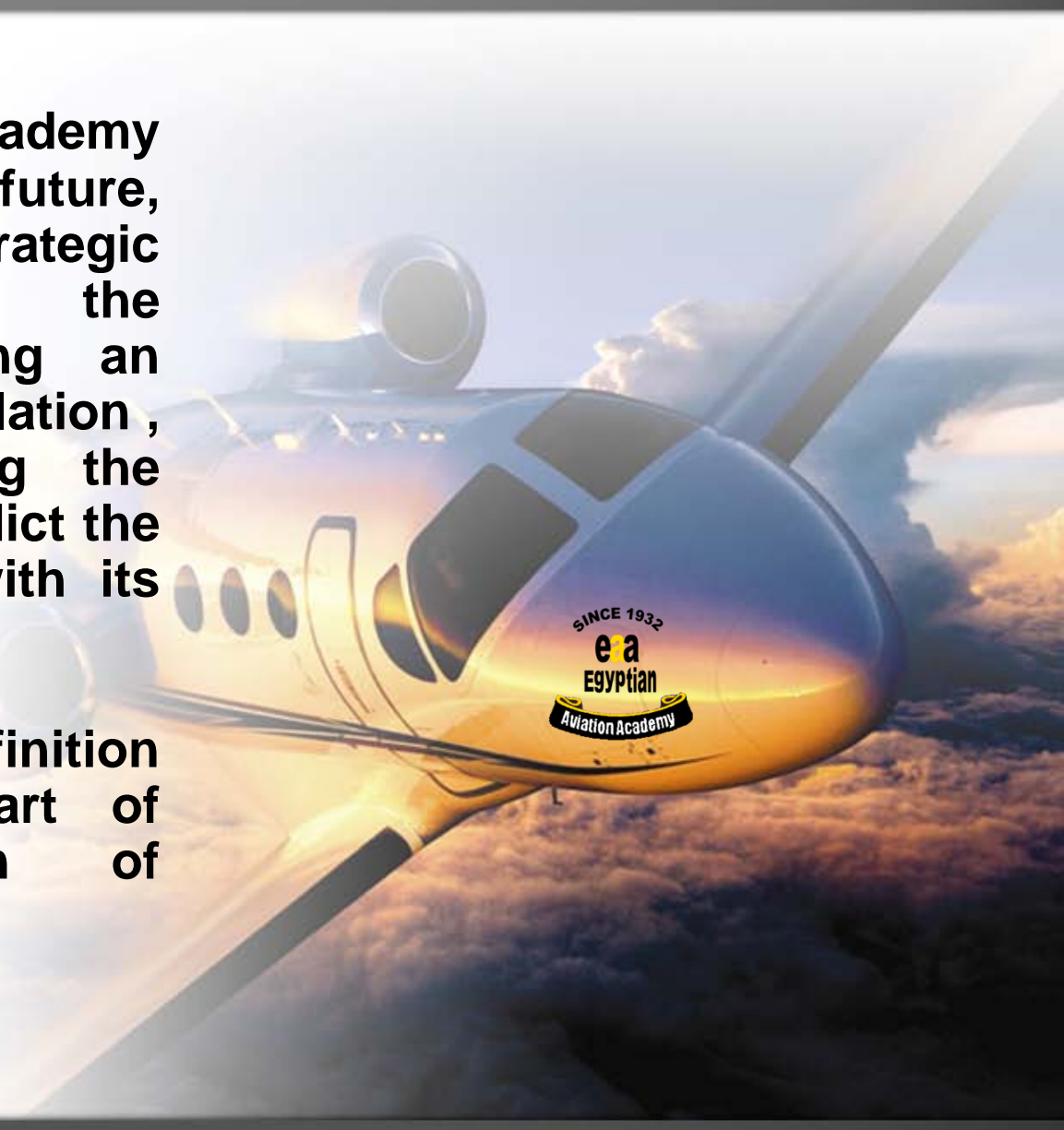
**It can also be looked at as the application of scientific knowledge, or the art of using science .**



# EAA view towards Future

**The Egyptian Academy positively looks at the future, based on the strategic thinking recognizing the importance of playing an active role in the formulation , shaping and building the future , not just to predict the future and to cope with its requirements.**

**EAA believes in the definition of technology as the art of practical application of Science in Industry.**



# EAA view towards Future

EAA focuses on the growing use of technology and ( *adaptation* ) in believing that that technology is a beneficial approach for all aspects of life including training activity.

EAA also applies the policy of using and adapting the use of technology for training purposes aiming at increasing the efficiency and effectiveness of the training process .

Technology is a good mean for formulating and shaping the future as the aviation trainees at the moment , will be the leaders and managers of aviation in the future .



# Technology in Training

EAA started with an important question, namely:

- ❖ How do we plan to maximize the academy use of technology in the field of training .... and how to adapt technology to serve the purposes of training in various areas ?
- ❖ If we move to maximize the use of technology to be adapted for training purposes, the Academy has given applied models in this regard .
- ❖ There are many examples and models on the use and adaptation of technology in the field of training in EAA .



# World Demand

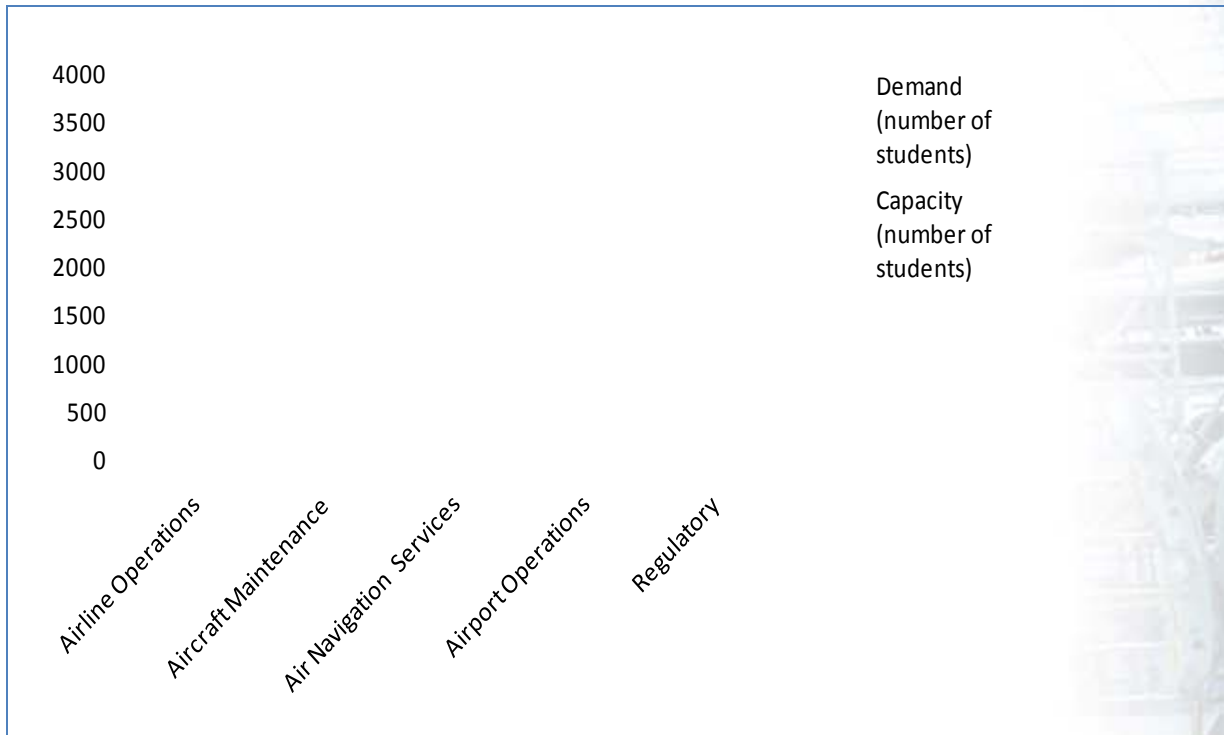
Consolidated Boeing Airbus Figures



## Explosive fleet growth sparks pilot demand :

- The world needs about **235,000** additional pilots until **2020**. This means more than 19 000 pilots annually.
- Fleet growth of **17 000** aircraft by **2020** is estimated
- Africa & Middle East need around **2 000** Pilots annually.
- Doubles of other crew members are needed.

# Africa Current Need & Demand



What are we doing to answer the current training needs in different fields ?

Did we predict the future training needs in different fields ?

What did we do to answer the future training needs in different fields ?

# Facing the Challenge

A methodical approach to meeting challenges

- Strategic thinking in planning
- Standardization and Harmonization
- Competency Based Training (performance focus )
- Outcomes Focus ( Knowledge, skills and attitudes)
- Evidence based Training
- Operational environment
- Initial and continuing training
- Integrated systems training HME
- Education together with training
- ATO Certification Requirements
- >>>>>>

EAA has been working through this process a long the last 5 years using a rigorous instructional systems design methodology



# The Need to Change

- As the aircraft change ...
- As the airspace changes ...
- As the demographics of aspiring
- aviation professionals change ...

We must also change

- ✓ how we train
- ✓ our regulatory structure,
- ✓ our methodologies
- ✓ and our tools

What we must never change are our objectives of high standards of quality and safety





# EAA Focal Points

- Updated Regulations according to ICAO SARPs and CAA Regulations...
- Standardized and Harmonized TPMs
- International STPs
- Latest of the art Training Facilities ...
- Qualified experienced Instructors
- Safety , Quality and Customer Focus ...
- Cooperation and partnership
- Sufficient Increasing Capacity
- Effective and flexible Structure



# EAA Structure

➤ An Autonomous Part of Civil Aviation...

➤ Five Specialized Colleges

MFC / ATCC / CAMTC/ AEC / ITC

➤ 3 Airports for training

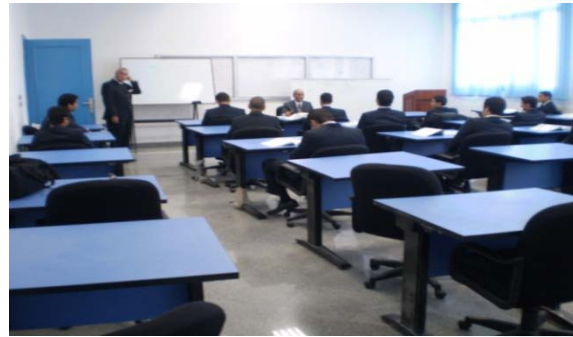
➤ Research and Development Unit

➤ Program Development Unit ( TRAINAIR)



# Progress Achieved at EAA

## Pilots and Airline Operations



**Integrated Education & Training Programs**  
**Theoretical / CBT /**  
**Simulation / Practical Flying**

# Progress Achieved at EAA Pilots and Airline Operations



## Training Environment

# Progress Achieved at EAA Pilots and Airline Operations



## Standard Training Programs

# Progress Achieved at EAA

## Pilots and Airline Operations



Cessna 172



Cessna 152



Commander



Bonanza



Cessna Citation Mustang



Baron B55 - 58

□ 48 Aircraft for Training Including VLJ  
Annual Capacity of 300 Pilot



# Progress Achieved at EAA

## Navigation and Air Traffic Management



International  
Civil Aviation  
Organization

Organisation  
de l'aviation civile  
Internationale

Organización  
de Aviación Civil  
Internacional

Международная  
организация  
гражданской  
авиации

منظمة الطيران  
المدني الدولي

国际民用  
航空组织

THE SECRETARY GENERAL

Ref.: TC 2/3.100 (04/803)

30 July 2009

H.E. Ahmed Shafik  
Minister of Civil Aviation  
Ministry of Civil Aviation Complex  
P.O. Box 11776  
Cairo International Airport Road  
Cairo, Egypt

Excellency,

I have the honour to inform you that the Air Traffic Control College (ATCC) of the Egyptian Aviation Academy (EAA) has successfully met all of the conditions required to be recognized by ICAO as a Regional Training Centre for air traffic control training. Therefore, I am pleased to confirm that the ATCC of the EAA is recognized by ICAO as a Regional Training Centre for air traffic control training.

This recognition is a remarkable achievement and one of which you can be proud. The rigorous evaluations undertaken by ICAO have revealed an institution fully committed to ensuring the highest standards in the field of Air Traffic Control with the necessary support and oversight by the Civil Aviation Authority of Egypt to ensure continuous quality training.

Please accept, Excellency, the assurances of my highest consideration.

Taieb Chérif  
Secretary General

Recognition by ICAO  
as a Regional Training Center

# Progress Achieved at EAA

## Air Navigation and Air Traffic Management



**Latest Of the Art Training Facilities**



# Progress Achieved at EAA

## Air Navigation and Air Traffic Management



**ATCC COURSES.**



**AIS COURSES.**



**COMMUNICATION OPERATION COURSES.**



**AIR TRANSPORT COURSES.**



**SPECIAL COURSES.**



**ON REQUEST COURSES.**



**AIR TRAFFIC SERVICES MANAGEMENT COURSES**



**ACADEMIC COURSES**

## Comprehensive Training Programs

Egyptian Aviation Academy



# Progress Achieved at EAA

## Air Navigation and Air Traffic Management



International  
Civil Aviation  
Organization

Organisation  
de l'aviation civile  
internationale

Organización  
de Aviación Civil  
Internacional

Международная  
организация  
гражданской  
авиации

منظمة الطيران  
المدني الدولي

国际民用  
航空组织

THE SECRETARY GENERAL

Ref: TC 2/3.100 (04/803)

30 July 2009

H.E. Ahmed Shafik  
Minister of Civil Aviation  
Ministry of Civil Aviation Complex  
P.O. Box 11776  
Cairo International Airport Road  
Cairo, Egypt

Excellency,

I have the honour to inform you that the Air Traffic Control College (ATCC) of the Egyptian Aviation Academy (EAA) has successfully met all of the conditions required to be recognized by ICAO as a Regional Training Centre for air traffic control training. Therefore, I am pleased to confirm that the ATCC of the EAA is recognized by ICAO as a Regional Training Centre for air traffic control training.

This recognition is a remarkable achievement and one of which you can be proud. The rigorous evaluations undertaken by ICAO have revealed an institution fully committed to ensuring the highest standards in the field of Air Traffic Control with the necessary support and oversight by the Civil Aviation Authority of Egypt to ensure continuous quality training.

Please accept, Excellency, the assurances of my highest consideration.

Taieb Chérif  
Secretary General

## Recognition by ICAO as a Regional Training Centre

Egyptian Aviation Academy

# Progress Achieved at EAA

## Airport Operation / Aviation Engineering



SINCE 1932  
**eaa**  
Egyptian  
Aviation Academy



**Aircraft Maintenance / Aircraft Avionics /  
Radio Maintenance / Airport Engineering  
Airport Operation & Management  
Aviation Security**

# Progress Achieved at EAA

Airport Operations / Management / Aviation Engineering



## Aviation Medicine Programs

Egyptian Aviation Academy

# Progress Achieved at EAA

## Airport Operation / Aviation Engineering



International  
Civil Aviation  
Organization

Organisation  
de l'aviation civile  
internationale

Organización  
de Aviación Civil  
Internacional

Международная  
организация  
гражданской  
авиации

منظمة الطيران  
المدني الدولي

国际民用  
航空组织

THE SECRETARY GENERAL

Ref.: TC 2/3.100 (04/803)

20 August 2008

His Excellency Ahmed Shafik  
Minister of Civil Aviation  
Ministry of Aviation Complex  
P.O. Box 11776 A.R.E.  
Cairo International Airport Road  
Cairo  
Egypt

Excellency,

I have the honour to inform you that the Designated Medical Examiners (DMEs) programme provided by the Civil Aviation Management Training College (CAMTC) of the Egyptian Aviation Academy (EAA) has been thoroughly assessed by the International Civil Aviation Organization (ICAO). During a mission to Cairo, the Chief, Aviation Medicine Section and Chief, Flight Safety Section of ICAO reviewed the facilities used for training the DMEs and worked very closely with the course developers and instructors of the CAMTC. I am pleased to confirm that the Civil Aviation Management Training College of the Egyptian Aviation Academy is recognized by ICAO as a "Centre of Excellence" for the Designed Medical Examiner training programme.

This recognition is a remarkable achievement and one of which you can be proud. The rigorous evaluations undertaken by ICAO have revealed an institution fully committed to ensuring the highest standards in the field of DME training with the necessary support and oversight by the Civil Aviation Authority of Egypt to ensure continuous quality instruction.

Accept, Excellency, the assurance of my highest consideration.

  
Taieb Cherif



Recognition by ICAO as a Centre of Excellence for the Aviation  
Medicine courses

# EAA Partners

❑ **Int. Civil Aviation Organization.**



❑ **Int. Air Transport Association.**



❑ **Flight Safety Foundation.**



❑ **L'Ecole Nationale De l'avia  
Civile – France.**



❑ **Air Business Academy.**



❑ **Aerospace Medical Association**



❑ **African Civil Aviation Commission.**

# Conclusions

- **The approach of the academies and training centers should be based on a positive look at the future using and adapting the technology as one of the most important tools for building and shaping the future.**
- **Training is viewed as an organized activity aiming at developing knowledge , skill , capacity and capability to influence attitudes and behavior in the desired direction to achieve the objectives .**



# Challenges Facing the Use and Adaptation of Technology



- ✓ **The challenges facing the use of technology require the combined ideas and efforts to develop appropriate solutions, including maximization of the benefits of technology through the adoption of the advanced training centers by the International Civil Aviation Organization .**
- ✓ **Those centers that reached reasonable level of developing its capabilities and adapting the use of technology in the training process can be recognized by ICAO to become specialized centers and bright spots of radiation world wide.**





# Conclusion

- ✓ **Integration and exchange of experiences and cooperation between African Aviation Academies and training centers is vital for better training environment .**
- ✓ **It is Proposed that AFCAC set up a scenario plan for recognizing specialized training centers that have been modernized to be responsible to raise the rates of efficiency in the training and qualify instructors and other training staff .**



# Conclusion



- ✓ **ICAO Recognition of specialized centers can assure the efficiency and effectiveness of the training process in these Civil Aviation Training Centres so as to obtain the highest levels of safety and security .**
- ✓ **Aviation Training academies should make use and adaptation of technology aiming at achieving safe , efficient and economic operations .**



# Conclusion

- ✓ **The Egyptian Aviation Academy has reached an advanced level in preparation and implementation of standard training that is recognized and approved by ICAO**
- ✓ **The Egyptian Aviation Academy has increased its capacity along the last few years ready to actively share in answering the demand existing in the African Civil Aviation countries . It is also ready to provide the African countries with the technical support in different ways .**



# Conclusions



- ✓ *It is so important to take advantage of the great technological advances in the field of training for the purpose of developing aviation training centers*
- ✓ *AFCAC can benefit from the academies that have reached the level of excellence so as to absorb the increasing training demand for civil aviation training in Africa*



# Conclusion

*Our view for the next generation in the field of civil aviation starts from the look to the future with an approach focuses on participation in building and formulating the future based on optimizing the use and adaptation of technology for the purposes of high efficiency and effectiveness with the highest levels of*



# Words to think about



- **STRATEGIC THINKING AND PLANNING**
- **STANDRDIZE AND HARMONIZE**
- **STUDY , VERIFY AND ANLYSE OUR CURRENT AND FUTURE NEEDS**
- **ASSESS , DEVELOP AND INTEGRATE OUR CAPABLILITES**
- **ESTABLISH IMPLEMENTATION AND FOLLOW UP MECHANISMS**





# Egyptian Aviation Academy



THANKS FOR YOUR  
ATTENTION...





# **2<sup>nd</sup> Pan-African Training Coordination Conference**

**Cairo, Egypt, 22-24 June 2010**

**The Kenyan Concern – Aviation Training Needs in Africa**

*Presented by: Justina Nyaga – Ag. Director EASA*



# Aviation Training Needs in Africa

## Introduction:

Pursuant to recommendation N°5/8 of S-RAN/AFI, the First Conference of African Civil Aviation Training Centers was organized in Niamey (Niger) from 17 to 19 February, 2009, under the co-sponsorship of AFCAC and ICAO.

Two resolution were reached.

# Aviation Training Needs in Africa

## Those resolutions were:

1. To train for the future - pooling of resources for an efficient training (Competency-based Approach),
2. To provide for an overall training policy for Africa – the need for a safety oversight system and a gap analysis to help training centers better address the deficiencies that have been identified by ICAO audits.

# Aviation Training Needs in Africa

## Steps to Take:

To achieve these resolutions, it is the view of EASA that; the African States should:

- Provide adequate training in various areas of the industry, e.g. Flight Safety and Civil Aviation Regulations.
- Improve on Quality Management System programmes so as to meet the global regulatory requirements.

# Aviation Training Needs in Africa

## The Kenyan Concern

The serious concerns for the AFI aviation sector is the lack of:

- Adequate and skilled human resources, and
- Modern training facilities.

The solution rests with improvement of the existing public aviation training centers and instructional staff development in their respective areas of expertise.

# Aviation Training Needs in Africa

## The Kenyan Concern cont.....

To alleviate some of these problems, East African School of Aviation (EASA) has embarked on a pragmatic approach to:

- Establish a TOT program for Flight Safety Inspectors;
- Expand the training to cover appropriate flight safety programmes such as ATPL ground school training, with the possibility of conducting PPL and CPL in the near future.

# Aviation Training Needs in Africa

## The Kenyan Concern cont.....

- Create a more suitable training environment that offers possibilities for expansion;
- Expand or diversify into demand-based training activities offered at the institution to ensure sustainability;
- Develop and improve on human capacity to meet the dynamic changes in aviation technology.

# Aviation Training Needs in Africa

## Capacity Development & Facilities Enhancement

EASA is in agreement with ICAO-ACIP Working Group of the Training Experts in that:

- ✓ To avoid wasteful duplication and competition among themselves, the AFI Training Institutes should instead enhance cooperation through existing training capacities, capabilities, facilities and research for higher learning (AVSEC programmes ).

# Aviation Training Needs in Africa

## Capacity Development & Facilities Enhancement - Cont.....

- ✓ Modernization of and upgrading of these training facilities should be addressed effectively by the respective governments to bring the once eroded confidence back to the aviation training industry



# Aviation Training Needs in Africa

## Conclusion

1. AFI Training Institutions should take the business approach to training management without losing focus on the mandate to effectively meet civil aviation personnel requirements through:

- Consolidating the capacities for courses development and delivery,
- Developing proactive approach to marketing and public relations targeting both the regional and global markets.

# Aviation Training Needs in Africa

## Conclusion

The Institutions should develop human capacity in core areas of training and establish succession plans so as to attain the academic pedigree by:

- Effective training - human capacity building is the fundamental base for any sustainable development of cooperation.
- Sound resource management - creative approaches to tackling skills and research issues that embed a culture of innovation and technical excellence

# Aviation Training Needs in Africa

Teamwork is the ability to work together toward a common vision. The ability to direct individual accomplishments toward organizational objectives. It is the fuel that allows common people to attain uncommon results.

Andrew Carnegie



**THANK YOU !!!**



# NACoE – National Aerospace Centre of Excellence South Africa

Overview to

## ICAO ACIP Conference

Rudolph Louw - Director

*22 June 2010*



**the dti**

Department:  
Trade and Industry  
REPUBLIC OF SOUTH AFRICA



an initiative of **the dti**

**National Aerospace  
Centre of Excellence**



# NACoE Objectives

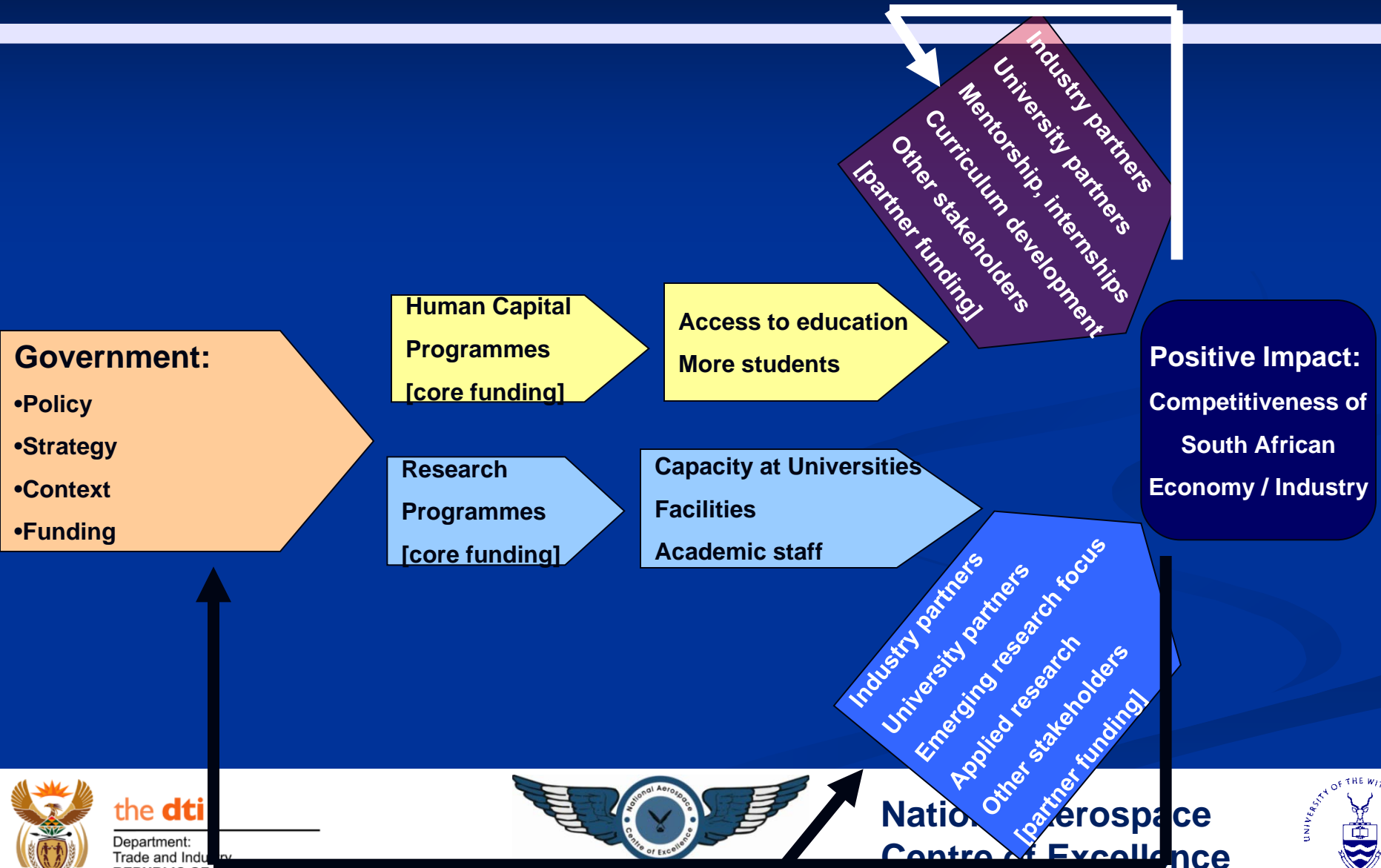
- To produce highly skilled human resources in the field of aerospace in line with the requirements and expectations of the (South) African aerospace industry
- To conduct leading edge, commercially significant technology research projects in the field of aerospace in a partnership model
- To establish a national knowledge repository in the field of aerospace
- To conduct technology transfer activities
- To establish and maintain the core NACoE functionality at Wits University, in collaboration with other leading Higher Education Institutions, industry and other stakeholders

# NACoE Mission

The NACoE conducts leading edge, commercially significant technology research and development for the aerospace industry in South Africa that would not have otherwise happened, and enhances the competitiveness and sustainability of the industry

- Key outputs of the NACoE are:
  - new or more competitive technologies/products
  - new knowledge
  - highly skilled human resources
  - technology transfer

# NACoE Model

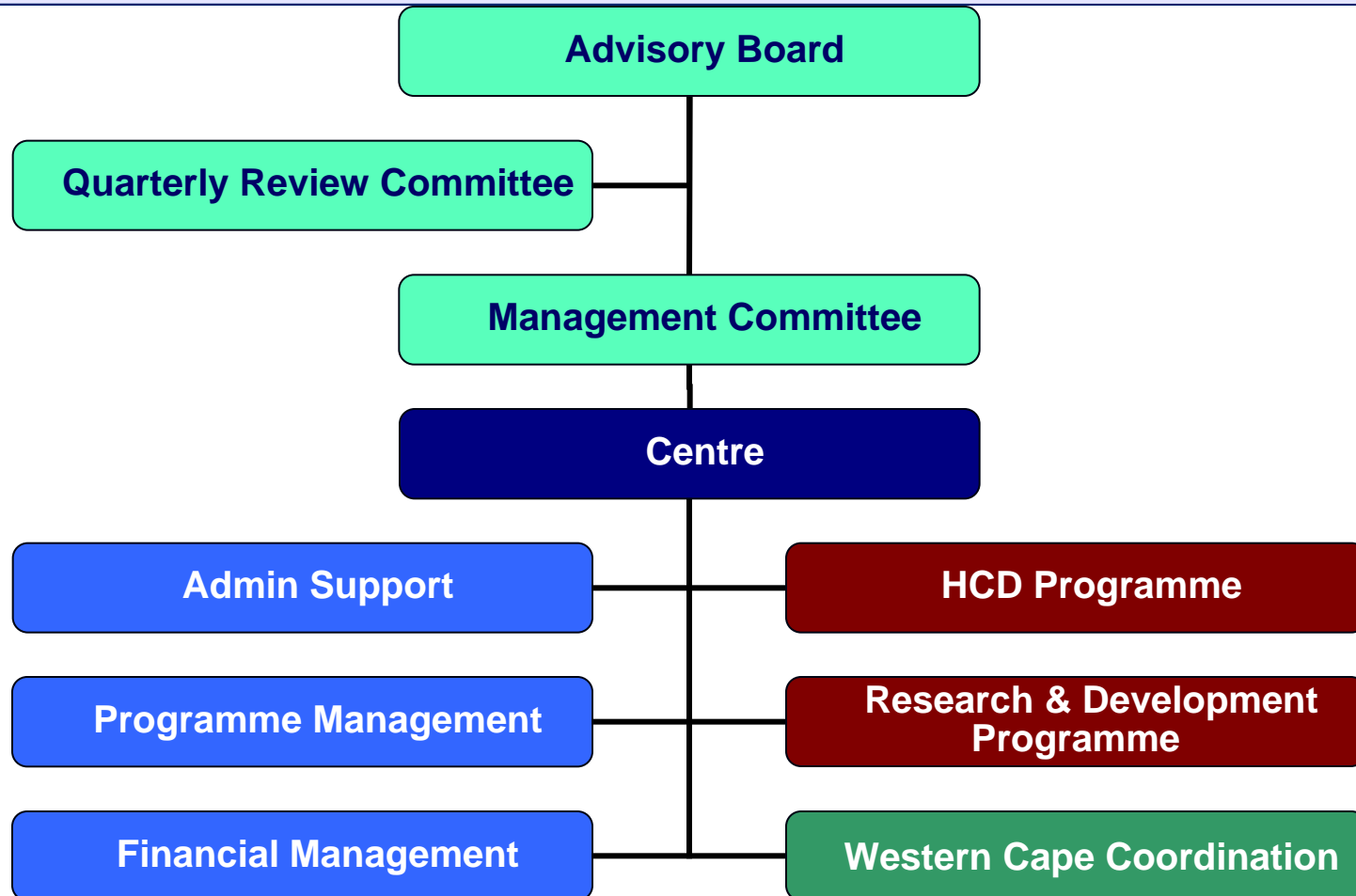


# NACoE Programmes and Projects

- Programme 1: Human Capital Development
- Programme 2: Research & Development
- Programme 3: Knowledge Management
- Programme 4: National Facilities
- Programme 5: Certification and Conformity Assessment
- Programme 6 : Project Management



# NACoE Structure



**the dti**

Department:  
Trade and Industry  
REPUBLIC OF SOUTH AFRICA



an initiative of the dti

**National Aerospace  
Centre of Excellence**



# HCD – Projects

- Project 1: Bursaries and Scholarships
- Project 2: Retention & Promotion
- Project 3: Experiential Training
- Project 4: Studies
- Project 5: Course & Curricula Development
- Project 6: Special Projects

# Special Projects: AeroAfrica-EU

- To create a platform for enhancing aeronautics and air transport research and development (R&D) cooperation between the EU and Africa – starting with SA
- Participants:
  - University of the Witwatersrand, South Africa
  - National Aerospace Centre of Excellence, SA
  - Aerospace Valley, France
  - Cranfield University, UK
  - Fraunhofer-Gesellschaft zur Förderung der Angewandten Forschung E.V. Fraunhofer, Germany
  - Department of Science and Technology, South Africa
  - Kungl Tekniska Högskolan, KTH, Sweden

# AeroAfrica-EU

- 2009 FP7 Call analysis workshops held with broader aerospace community in attendance
- Addressed were AeroAfrica-EU overview, FP7 Call Analysis, FP7 project processes & DST supporting instruments
- Potential FP7 collaboration areas were noted
- 2010 FP7 Call due in July – various workshops
- Workshop at Cranfield 19 July

# NACoE : Suggestions

- Capacity, demand, harmonization and quality all are important
- Need to also address the learner feeder stream
- Aviation / aerospace competes with other careers
- Promote aviation as preferred career choice - awareness
- Need to identify appropriate school subjects early
- Career growth opportunities essential
- Partnerships essential – commitment vs involvement
- Structure phased approach – milestones & reviews

# NACoE : Lessons Learnt

**Courses**  
**Accreditation**  
**Quality**  
**Syllabi**  
**Research – future**  
**Infrastructure**  
**Trainers**  
**Students**  
**Feeder stream**  
**Funding**  
**Careers**





# Sci-Bono Aviation Awareness







# Summary: NACoE

- NACoE have structures, processes and networks in place to support proposed implementation actions of ACIP such as:
  - development of training capacity
  - the process of development and maintenance of standardized training courses / curricula
  - participate in an African Training Advisory Board to promote best practices, develop minimum standards and to monitor implementation
  - participate in an Association of African Training Organizations
- This can be either for SADC and / or reaching out into the Continent in partnerships

# THANK YOU



**the dti**

Department:  
Trade and Industry  
REPUBLIC OF SOUTH AFRICA



an initiative of **the dti**

**National Aerospace  
Centre of Excellence**

