

**MEXICO *NOW***

# **Mexico's Aerospace Summit**

Industry Analysis - Near Shore Manufacturing

**Queretaro, Mexico**

**October 4-5, 2012**

**MEXICO NOW**

# México's Aerospace Summit



**[ A Sky of Opportunities ]**

# Content

## Background

- Industry, Education and Technical Training
- Aeronautic Training History in México
- Evolution and development of Aeronautic formation.

## UNAQ Today

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- Actual student population
- Intensive Job Training Program
- Upper level technicians

## A sky of opportunities

- Aerocluster of Querétaro
- Strategic program of Aerospace Industry in México (Pro- Aéro) 2012 -2020

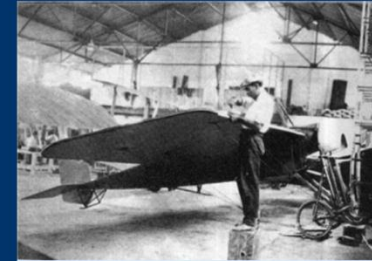
# Background

## Industry, Education and Technical Training

In Mexico exists aeronautic history since **1910**, and for more than a decade the manufacturing operations, MRO, and isolation of Research and Development.

Mexico has a long history in Aeronautical formations:

Since the creation of the Construction Aeronautics National Workshops (TNCA) College in **1914** and Air Military Aviation School in **1917**, the forerunner of what is now the Mexican Air Force.

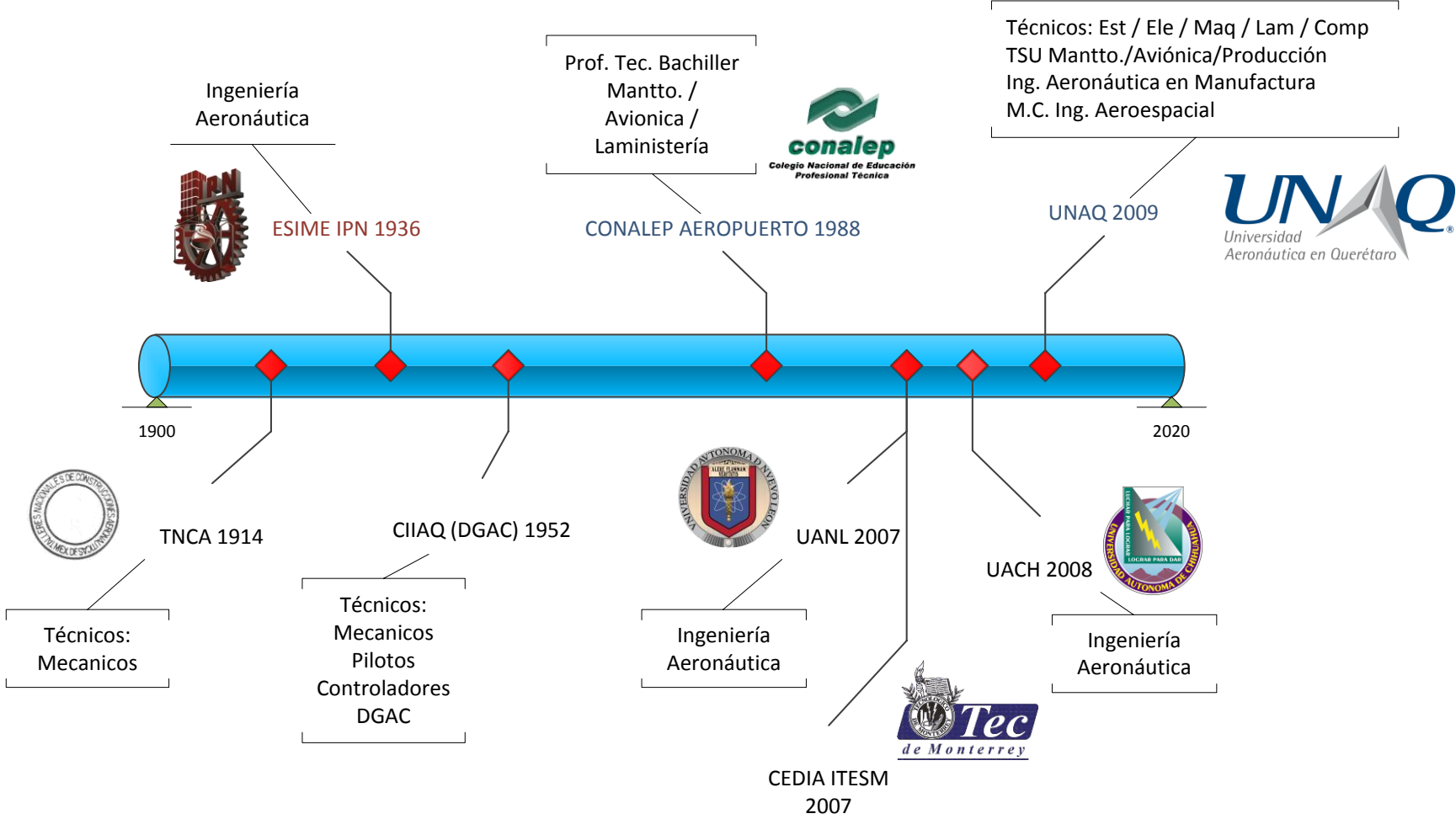
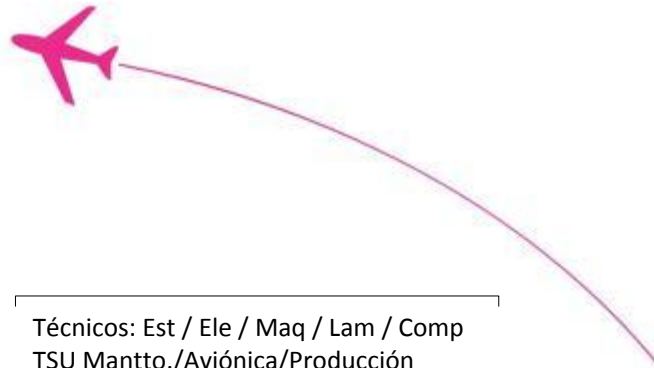


**Fantastic Stainless  
Bird Crossed  
the Mexican Sky  
Yesterday**



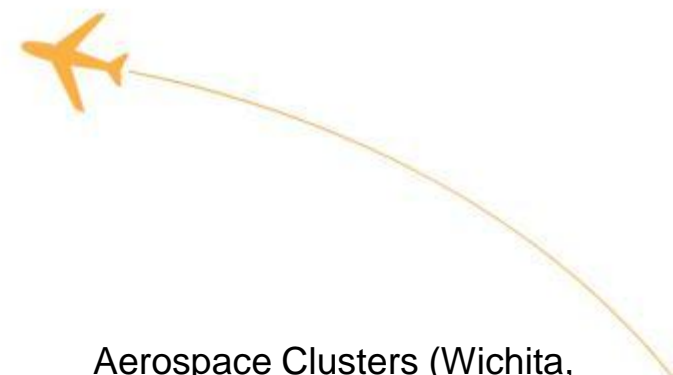
# Background

## Aeronautic Training History



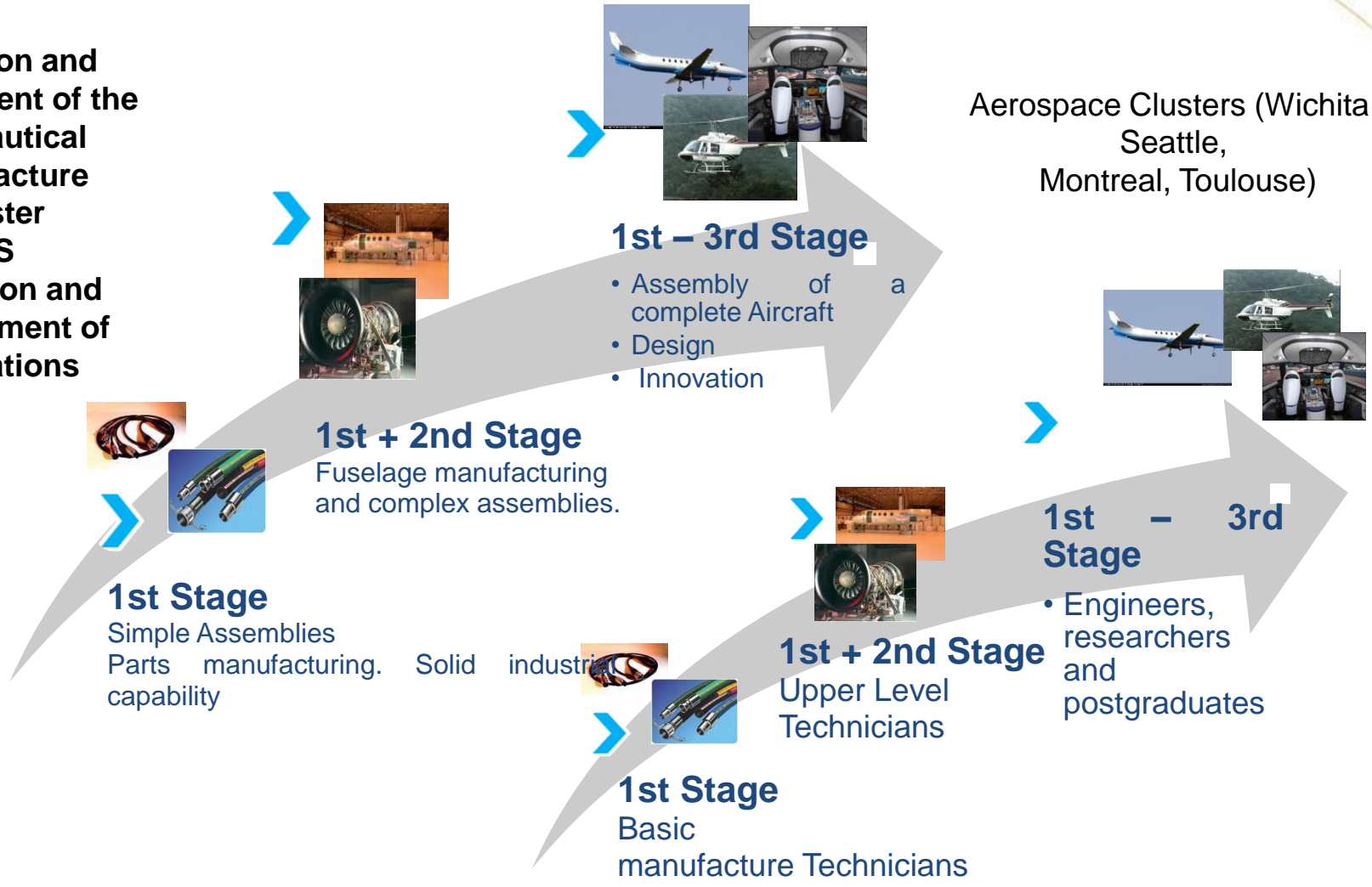
# Background

## Evolution and development of Formations



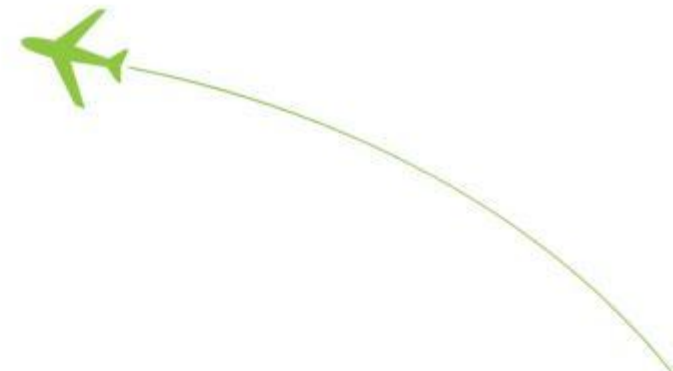
Evolution and development of the aeronautical manufacture cluster VS

Evolution and development of Formations



# UNAQ Today

## Educational programs



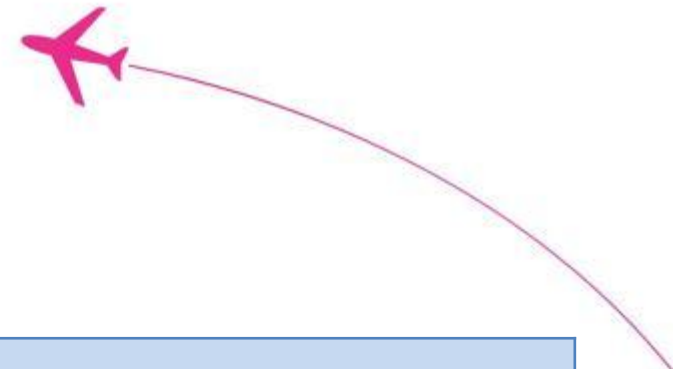
LEVEL	EDUCATIONAL PROGRAMS	LENGHT
Specific work training	<ul style="list-style-type: none"><li>1.- Electrical Assemblies</li><li>2.- Structure Assemblies</li><li>3.- Machining CNC</li><li>4.- Sheet Metal</li><li>5.- Composites</li></ul>	2 months to 8 months
Upper level Technician *DGAC	<ul style="list-style-type: none"><li>1.- Avionics *</li><li>2.- Aircraft maintenance *</li><li>3.- Aircraft manufacturing</li></ul>	2 Years
Engineering	<ul style="list-style-type: none"><li>1.- Aeronautic in Manufacture</li></ul>	4 Years
Graduate Programs (Master)	<ul style="list-style-type: none"><li>1.- Aerospace Engineering</li></ul>	2 Years

Two new programs

**Coming Next 2013**

# UNAQ Today

Actual Student Population



About the academic activities, UNAQ initiates courses with three educative levels in **January 2009.**

<b>ACTUAL STUDENTS POPULATION MAY 2012</b>	
<b>ACADEMIC LEVEL</b>	<b>ACTUAL STUDENTS POPULATION</b>
Manufacturing Aeronautic Engineering	226
Upper level Technician	250
Master	12
<b>Total:</b>	<b>488</b>



# UNAQ Today

Intensive Job Training Program

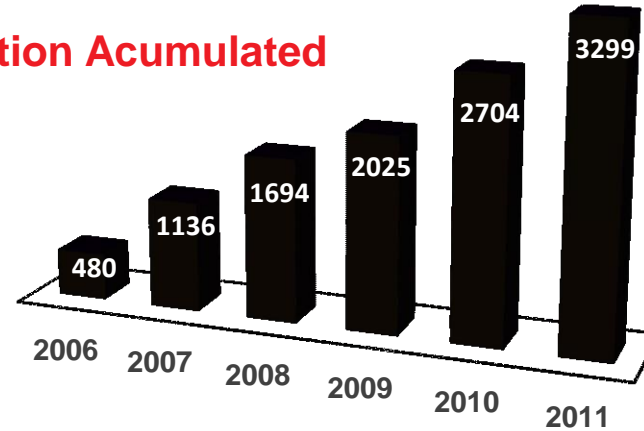


# 3,299

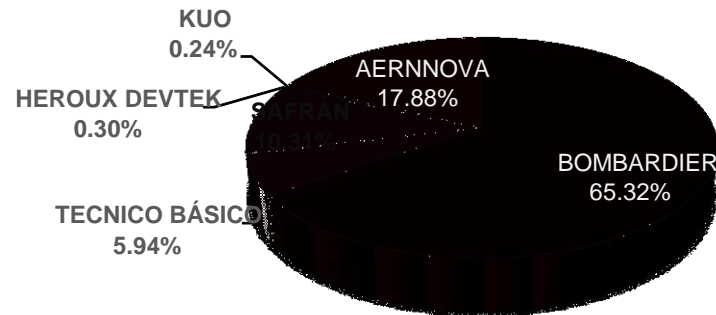
Specialized Technical  
Graduates

Since 2006

## Tuition Acumulated



## Distribution per Company

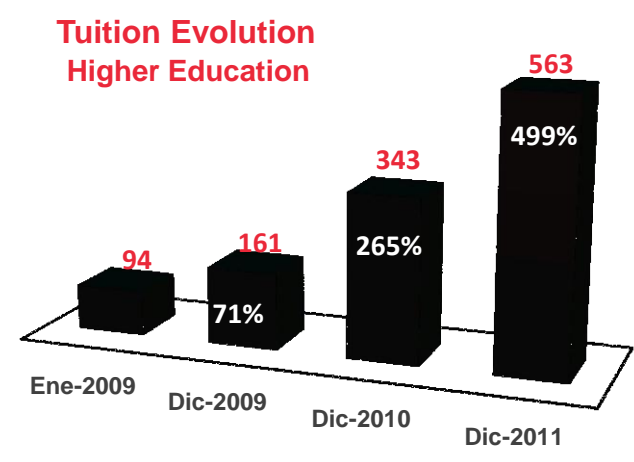


# UNAQ Today

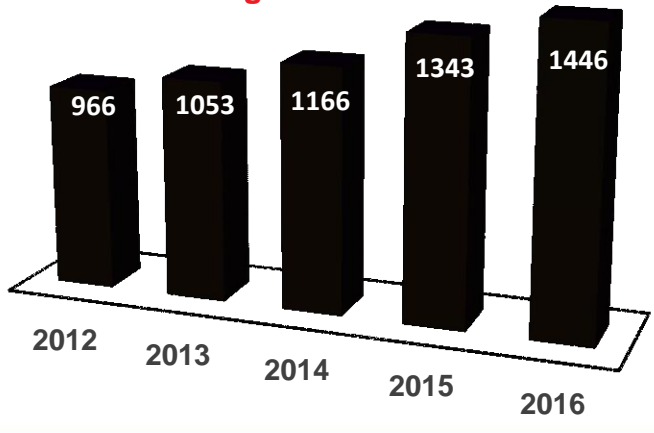
## Upper Level Technicians



**499%**  
Tuition growth<sup>1</sup>



**Graduated Projection Annual figures**



**5,974** Graduate  
Cumulative projection to  
2016

# A sky of opportunities

## Aeroclúster of Querétaro



The **Querétaro Aerospace Valley** has become an international reference due its rapid and strong evolution.

Thus, the creation of the **Querétaro Aerospace Cluster**, that integrates Research and Innovation processes of:

- ✈ Local research institutions
- ✈ Universities
- ✈ Companies



# A sky of opportunities

Pro- Aéreo (2012-2020)



**Pro-Aéreo 2012 -2020**  
**Programa Estratégico de**  
**la Industria Aeroespacial**

Launch of **The Strategic Program of Aerospace Industry in México** in UNAQ facilities (**Pro- Aéreo 2012 – 2020**) on March 14th, of this year.

This document is aligned to the objectives of the university, and also reflected in the Institutional Development Plan.



**FEMIA**  
FEDERACIÓN MEXICANA DE LA INDUSTRIA AEROSPAZIAL



**UNAQ**  
Universidad  
Aeronáutica en Querétaro

Datos, de  
[www.femia.org.mx](http://www.femia.org.mx)

**UNAQ**  
Universidad  
Aeronáutica en Querétaro

# A sky of opportunities

Pro- Aéreo (2012-2020)



## Five Strategies:

1. Promotion and development of domestic and foreign markets.
2. Strengthening and development of industrial capabilities.
3. ***Development of human capital needed.***
4. Technological development needed.
5. Development of transversal factors.



# A sky of opportunities

Pro- Aéreo (2012-2020)



## Milestones to be achieved:

- ✈ Formal establishment of national strategic procurement program.
- ✈ Inauguration test lab Aerospace Industry.
- ✈ **Design, development, manufacture and assembly of a motor module.**
- ✈ Assemble a plane with 50% local content.
- ✈ Mexico as a major HUB of aviation services in Latin America.

# A sky of opportunities

Pro- Aéreo (2012-2020)



## Goals 2020:

1. Mexico within the top 10 in International level export
2. Exports more than 12,000 million
3. **Having 110,000 jobs (30% -35% of engineering)**
4. 50% National integration in manufacturing industry.



# [A sky of opportunities]

- ✈ **We have understood industry needs to establish fast track training programs for helping companies to rapidly set up facilities.**
- ✈ **We are training the engineers and researchers for the medium term future... This is our main challenge and vision at UNAQ.**
- ✈ **Major potential impacts on national economic development due to competitive advantages as a country.**

[A Sky of Opportunities]



**Gracias**



**Thank you**

**Merci Beaucoup**

[www.unaq.edu.mx](http://www.unaq.edu.mx)



SECRETARÍA  
DE EDUCACIÓN

GOBIERNO DE  
**SOLUCIONES**



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