Successful Academic, Private, and Public Sector Collaboration: The Development of the Purdue – Colombia Aviation and Aerospace Network of Excellence

Robert F. Cox, Ph.D.
Senior Associate Dean for Globalization and Global Fellow, Purdue University

POLYTECHNIC SUMMIT – JUNE 4-6, 2018
Lima, Peru
The Basis for Success

ACADEMIA

PUBLIC SECTOR

PRIVATE SECTOR
The Basis for Success
The founding Network of Excellence members have come together to focus on the comprehensive improvement of the aviation and aerospace industries of Colombia and the greater Latin American region through successful development and delivery of university-level degree programs, applied research, professional development programs, community outreach, and engagement activities.

Capitalizing on our combined strengths and resources, we are effectively collaborating on mutually identified opportunities and challenges facing the Colombian aviation and aerospace industry.
Sustainable Positive Impacts on Colombia

TRAINING and EDUCATION
- Professional Development Activities

COMMUNITY OUTREACH

REPRESENTATIVE STAKEHOLDERS

CHAMPIONS

ACADEMIA

SECTOR PÚBLICO

SECTOR PRIVADO

New Products and Innovation

Research and Development

PhD Programs

MS Programs

BS Programs
Sustainable Positive Impacts on Colombia

- Socio-Economic Impacts
  - Jobs creation
  - Driving Policy change

- Global Competitiveness

- Capacity Building Degree Programs

- Workforce development

- Champions
  - ACADEMIA
  - SECTOR PÚBLICO
  - SECTOR PRIVADO
The Roles of Purdue University

Depending on the situation..

- **Leader**
- **Facilitator**
- **Capacity Builder / Supporter**
THE BASIS FOR SUCCESS

• Champions embracing education, government, and corporate perspectives.
• Capitalizing on our combined strengths and resources.
• Collaborating on mutually identified opportunities and challenges facing the Colombian Aviation and Aerospace industries.
• Local collaborations support a national movement
The founding members have come together to focus on the comprehensive improvement of the aviation and aerospace industries of Colombia through:

- successful development and delivery of university-level degree programs,
- applied research,
- professional development programs,
- community outreach,
- engagement activities and
- faculty and student mobility activities.
This Network Concept will serve as the ideal model for providing long-term solutions in Colombia through a series of similar network partnerships.

- Food Security
- Water
- Public Health and Safety
- Sustainable Developments
- Peacemaking Operations
- Disaster Readiness and Response
- Agriculture
- Cybersecurity and Global IT
- Data Analytics
- Education
This NOE will inspire broad and positive economic impact throughout Colombia and Latin America.
Purdue-Colombia Aviation and Aerospace NOE

TASK FORCE LEADERSHIP

**MRO Operations:**
Denver Lopp, Professor Emeritus, School of Aviation & Transportation, denver@purdue.edu

**Earth and Observation:**
Julian Mauricio Arenas, Coordinador Ingeniería Aeroespacial, Jmauricio.arenas@udea.edu.co
James L. Garrison, Ph.D., Professor of Aeronautics and Astronautics, jgarriso@purdue.edu

**Renewable Energy and Sustainability:**
Cr. Martin Zorrilla, Comandante Grupo Academico, EPFAC, martin.zorrilla@epfac.edu.co
Jose’ Bravo Garcia, Ph.D., Assistant Professor, School of Engineering Technology, jmgarcia@purdue.edu

**Aerospace and Aviation Materials:**
Jorge Ivan Garcia, Director Facultad Ingeniería Aeronáutica, Jorge.garcia@upb.edu.co
Andres Arrieta, Ph.D., Assistant Professor of Mechanical Engineering, aarrieta@purdue.edu
Purdue-Colombia Aviation and Aerospace NOE

FOR MORE INFORMATION

PURDUE UNIVERSITY
Robert F. Cox, Senior Associate Dean and Global Fellow, rfcox@purdue.edu

Manoj Patankar, Head, School of Aviation & Transportation, mspatankar@purdue.edu

Jose’ Bravo Garcia, Ph.D., Assistant Professor, School of Engineering Technology, jmgarcia@purdue.edu

UNIVERSIDAD DE ANTIOQUIA
Julian Mauricio Arenas, Coordinador Ingeniería Aeroespacial, Jmauricio.arenas@udea.edu.co

UNIVERSIDAD PONTIFICA BOLIVARIANA
Jorge Ivan Garcia, Director Facultad Ingeniería Aeronáutica, Jorge.garcia@upb.edu.co

UNIVERSIDAD NACIONAL SEDE MEDELLIN
Alejandro Restrepo Martinez, Professor, School of Mechanical Engineering, Arestre5@unal.edu.co

2018 POLYTECHNIC SUMMIT MEETING – JUNE 4-6 – Lima, Peru
QUESTIONS

Sustainable Positive Impacts on Colombia

Representative Stakeholders

Champions

ACADEMIA

SECTOR PÚBLICO

SECTOR PRIVADO

New Products and Innovation
Research and Development
PhD Programs
MS Programs
BS Programs

TRAINING and EDUCATION
- Professional Development Activities
Community Outreach

2018 POLYTECHNIC SUMMIT MEETING – JUNE 4-6 – Lima, Peru
Purdue-Colombia Aviation and Aerospace NOE

SCHOOL OF AVIATION AND TRANSPORTATION TECHNOLOGY

2018 POLYTECHNIC SUMMIT MEETING – JUNE 4-6 – Lima, Peru
Successful Academic, Private, and Public Sector Collaboration: 
The Development of the Purdue – Colombia Aviation and Aerospace Network of Excellence

Robert F. Cox, Ph.D.
Senior Associate Dean for Globalization and Global Fellow, Purdue University

POLYTECHNIC SUMMIT – JUNE 4-6, 2018
Lima, Peru