

# FEATI Initiatives for UAV Development



**UNMANNED AERIAL VEHICLE (UAV)  
R&D CONSORTIUM ROADMAPPING CONSORTIUM,  
Ateneo De Manila University, April 22, 2016**

# Project LAWIN

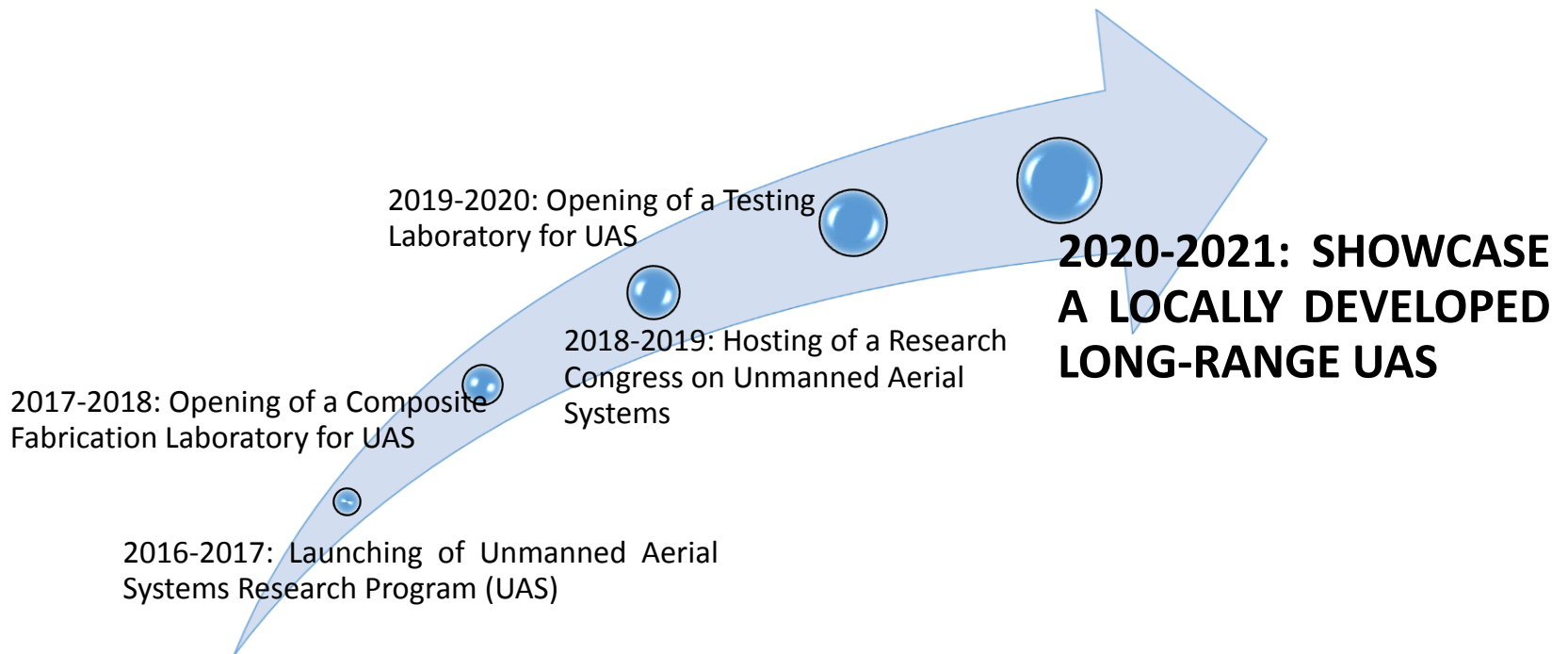
## **DOST-PCIEERD Project Title:**

Development of **Low-altitude Aircraft for Wide-field Imaging and Navigation (LAWIN)** as Remotely Piloted Aircraft System (RPAS) for Disaster Risk Reduction–Climate Change Adaptation (DDR-CCA)

## **General Objective:**

Develop a first prototype of Low-altitude Aircraft for Wide-field Imaging and Navigation (LAWIN-1) as a remotely piloted aircraft system (RPAS) that can be used for conducting disaster assessment and relief operations in areas struck by natural calamities

# 5-Year Research Program for Long-Range UAS



# Milestones

2016-2017

- Procurement of facilities and equipment for Composite Laboratory
- Conceptualization and Design of Unmanned Aerial Systems

2017-2018

- Testing of Unmanned Aerial System Designs through Simulations
- Application for Patents

2018-2019

- Hosting of Research Congress on Unmanned Aerial Systems
- Presentation (Local/International) and Publications (Peer Reviewed/Refereed/ISI and Scopus Indexed Journals) of Research Results

2019-2020

- Procurement of a wind tunnel
- Testing of Unmanned Aerial Systems Designs through the use of a wind tunnel
- Presentation (Local/International) and Publications (Peer Reviewed/Refereed/ISI and Scopus Indexed Journals) of Research Results

2020-2021

- Launching of **LOCALLY DEVELOPED UNMANNED LONG-RANGE AERIAL SYSTEMS**
- Commercialization of unmanned aerial systems

# Project BAGWIS

## **DOST-PCIEERD Project Title:**

Development of **Bi-modal Airframe Geared for Wide-field Imaging and Support (BAGWIS)** as for Disaster Risk Reduction–Climate Change Adaptation (DDR-CCA)

## **General Objective:**

Design and fabricate a long-range, long-endurance, and heavy-lifter airframe using composite materials for surveying for post-disaster assessment and logistical support for human-relief operations

## R&D GAPS & POSSIBLE COLLABORATORS

<b>UAV DEVELOPMENT</b>	<b>CURRENT UAV MARKET SITUATION (SUPPLY AND DEMAND)</b>	<b>R&amp;D GAPS</b>	<b>POSSIBLE COLLABORATORS (ACADEME / NGAs / PRIVATE)</b>
MATERIALS		Use of indigenous fibers for composite fabrication	FIDA-FUTD MIRDC
PAYLOAD		Human relief operations supply	NDRRCMC Coast guard Red Cross Phil Navy
FLIGHT CHARACTERISTICS		Use of long-range, long endurance, heavy-lifter fixed wing	FEATI
OPERATING REQUIREMENTS		Mission specifications from Government Agencies	NDRRCMC Coast guard Red Cross Phil Navy

## R&D GAPS & POSSIBLE COLLABORATORS

<b>UAV APPLICATIONS</b>	<b>CURRENT UAV MARKET SITUATION (SUPPLY AND DEMAND)</b>	<b>R&amp;D GAPS</b>	<b>POSSIBLE COLLABORATORS (ACADEME / NGAs / PRIVATE)</b>
DISASTER SEARCH AND RESCUE		Long-range UAV for logistical transport for human relief operations	NDRRCMC Coast guard Red Cross Phil Navy
POST-DISASTER ASSESSMENT		Long-range UAV for logistical post-disaster assessment	NDRRCMC DA

## R&D GAPS & POSSIBLE COLLABORATORS

<b>HR DEVELOPMENT / INSTITUTIONAL BUILDING</b>	<b>CURRENT UAV MARKET SITUATION (SUPPLY AND DEMAND)</b>	<b>R&amp;D GAPS</b>	<b>POSSIBLE COLLABORATORS (ACADEME / NGAs / PRIVATE)</b>
TRAINING		Aircraft design and composite fabrication	FEATI Heatcon/Aeroframe
POLICIES		Regulations and operational protocols for RPAS R&D	CAAP
TESTING / SIMULATION FACILITY		UAV testing facility (i.e., wind tunnel testing facility)	FEATI