



**MINISTRY OF TRANSPORTATION
REPUBLIC OF INDONESIA
DIRECTORATE GENERAL OF CIVIL AVIATION**

UAS INTEGRATION IN INDONESIA



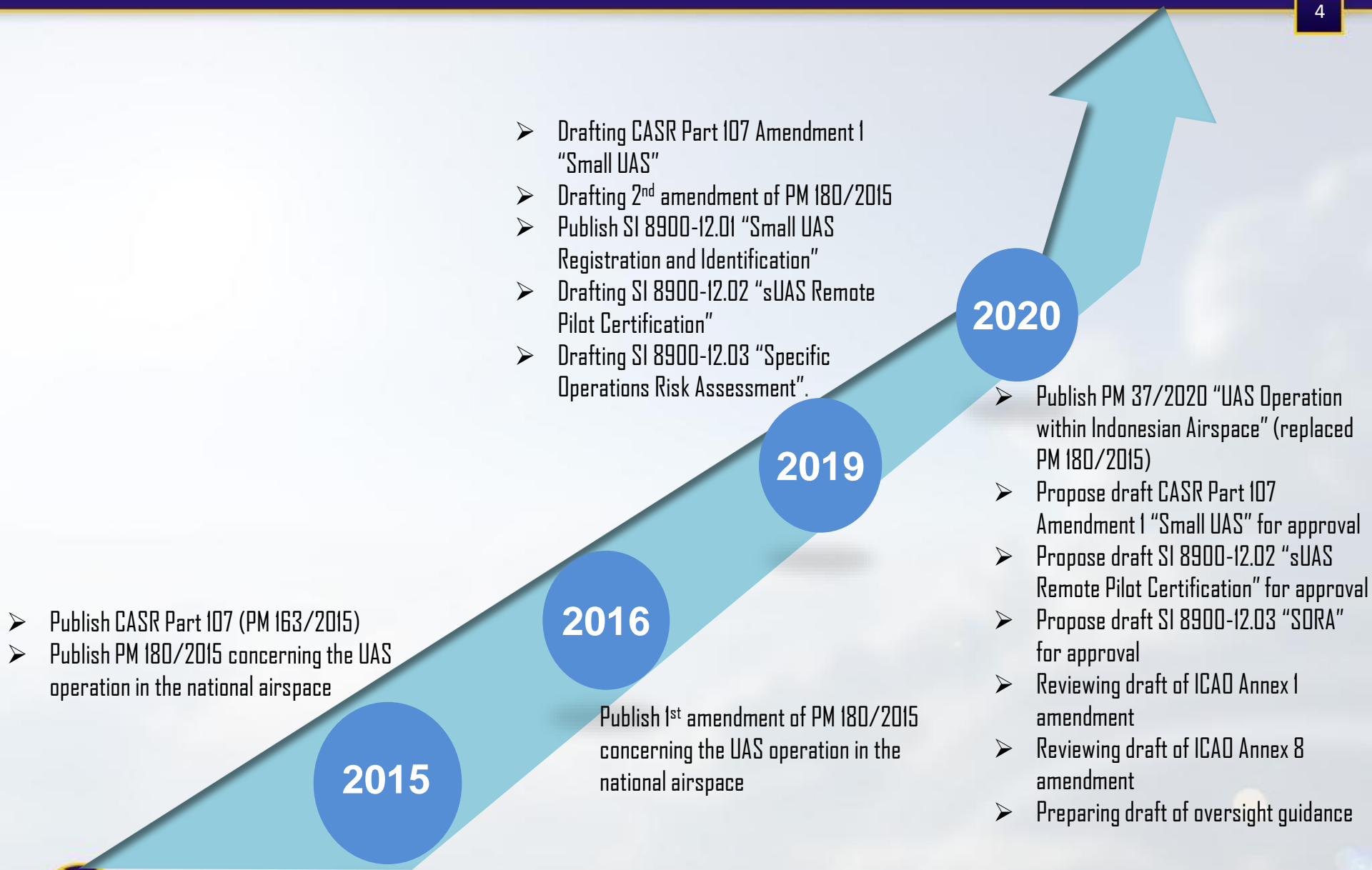
1. Regulation

2. Operational Concept & Operation Authorization

3. Improvement Stepping



1. Regulation



**CASR PART 107
(MINISTERIAL REGULATION PM
163 YEAR 2015)**

Regulate the provision of:

- Registration and Identification small UAS
- Certification of small UAS operator
- Operating rules
- Categorization of UAS
- etc

**MINISTERIAL REGULATION
PM 37 YEAR 2020**

Regulate the provision of:

- Description of the airspace/area operation of the UAS (Fly Zone and No Fly Zone)
- Operation in emergency situation,
- Compliances of other CASRs that must be met for UAS operation based on the scope of purposes (CASR 107, CASR 21, CASR 91, etc)
- Approval mechanism (requirement including the insurance for the third party, approval process, etc)
- General requirement of cargo delivery & carrying dangerous goods
- Oversight and law enforcement
- etc





2018

Joined on APAC UCWG #3 meeting at Canberra, Australia
Joined on JARUS WG 6 meeting at Brisbane, Australia

2019

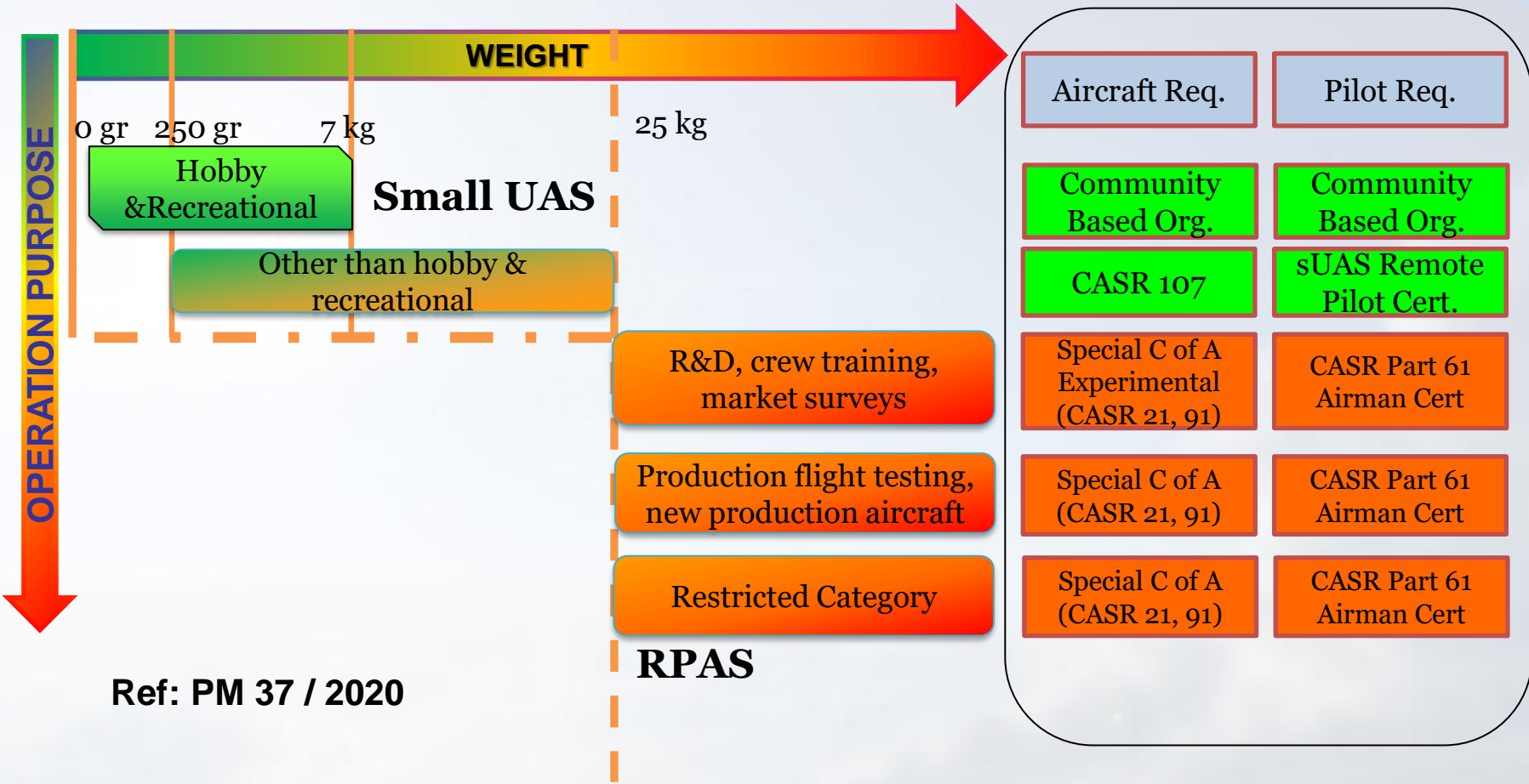
Joined on WEF Innovator network at Tokyo, Japan
Joined on JARUS Plenary meeting at Katowice, Poland
Joined on APAC UCWG #4 meeting at Washington DC, US

2020

Held webinar of Indonesian Drone Technology Stakeholder



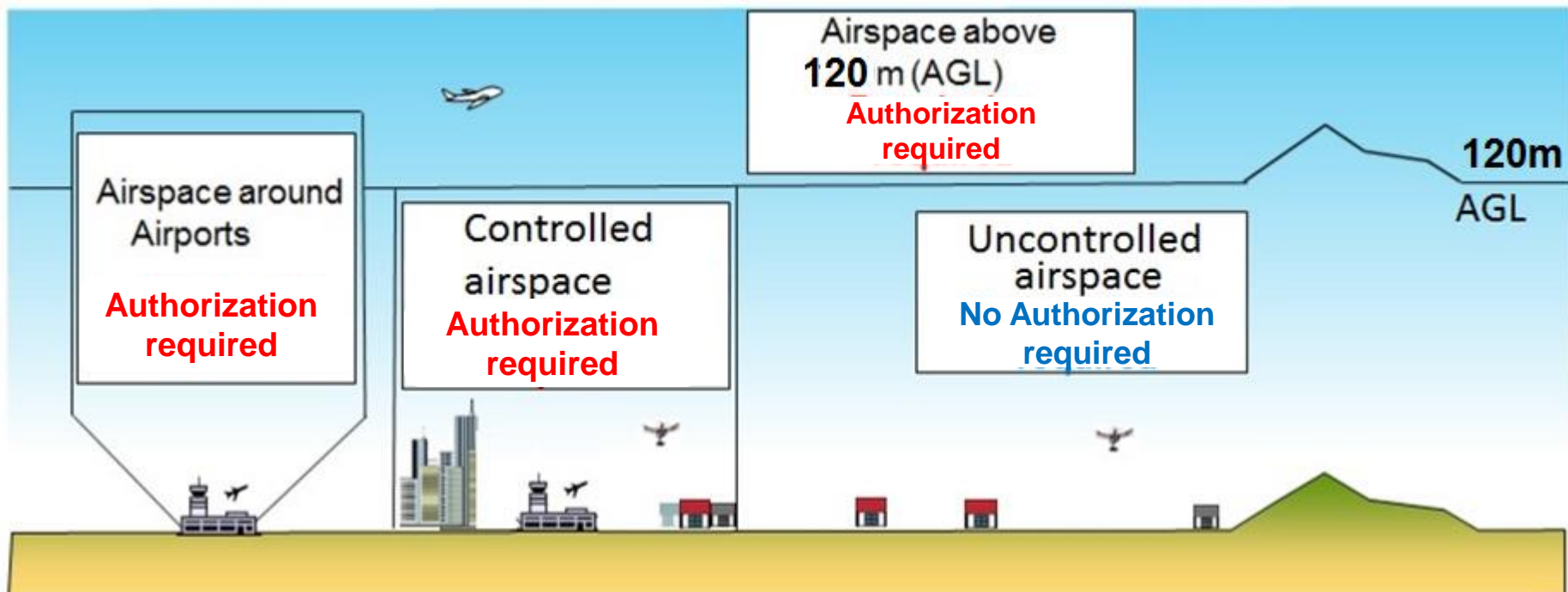
UAS CLASSIFICATION



Ref: PM 37 / 2020



2. Operational Concept & Operation Authorization



- AUTHORIZATION** from DGCA **IS REQUIRED** for the operation in the area as follow:
 - Obstacle Limitation Surface;
 - Controlled Airspace;
 - Uncontrolled Airspace, at or above 400ft AGL (120m)
- AUTHORIZATION IS NOT REQUIRED** for the operation in the area as follow :
Uncontrolled Airspace, below 400ft AGL (120m)
- Current : Segregated Operation based on Operation Centric**
On going to develop Non-segregated operation con-ops and risk-based approach



NO FLY ZONE

NO FLY ZONE



UNLESS AUTHORIZED BY DGCA

ALSO equipped with the assessment result or clearance by the authorized entity. For example :

- Security Clearance for the filming and photograph purposes at security sensitive area
- Assessment result from Airnav Indonesia (ANSP) for the operation in controlled and uncontrolled airspace

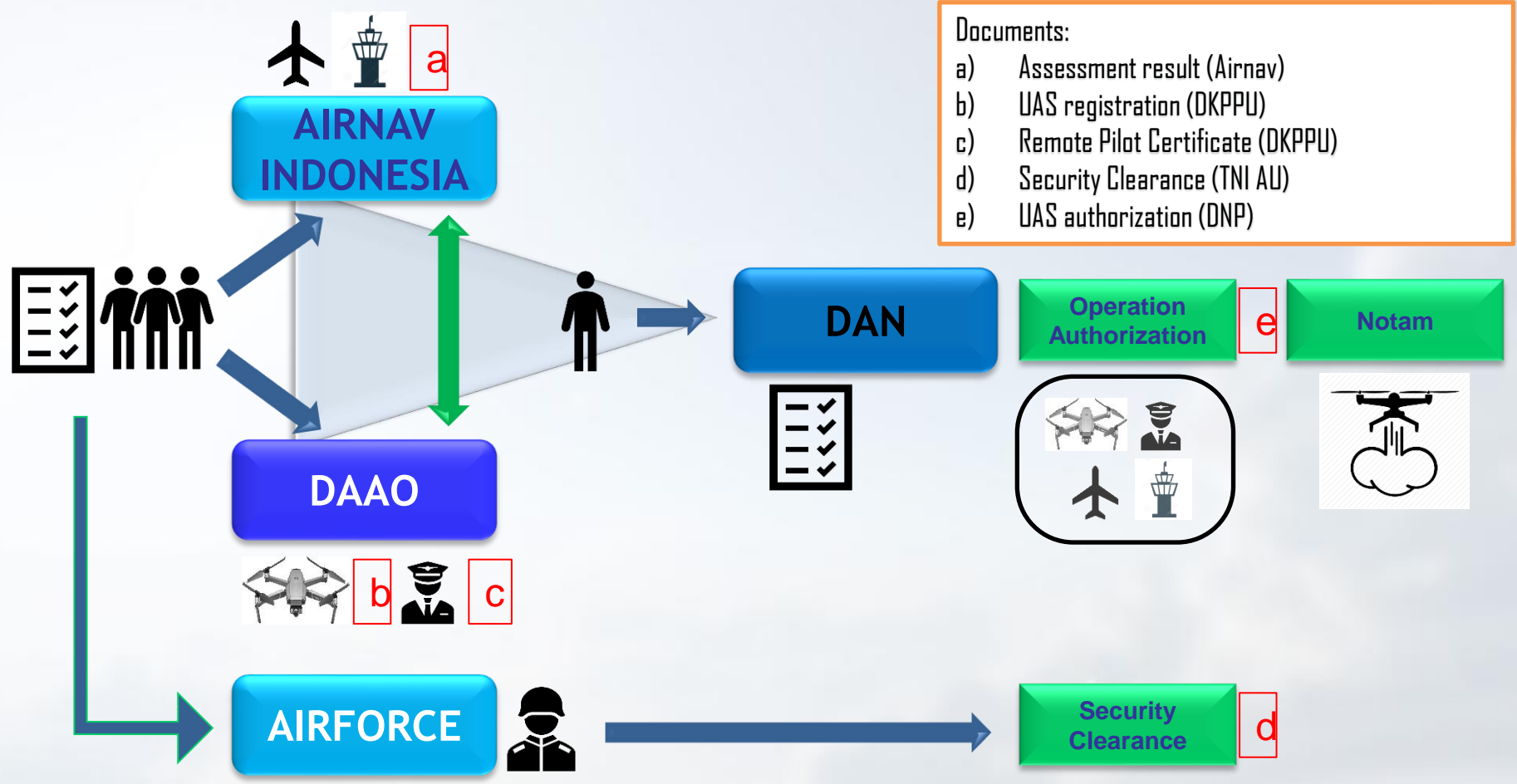


ANSP assessment result consists Hazard Identification & Risk Assessment/Safety Assessment regarding (but not limited to):

1. Airspace in general
2. Obstacle Limitation Surface
3. Airspace Reservation (eg. Prohibited, restricted, danger, training area)
4. Instrument Flight Procedures, VFR routes, ATS routes
5. Heliport/helipad
6. Coordination, communication and emergency procedure
7. Facilities



OPERATION AUTHORIZATION PROCESS



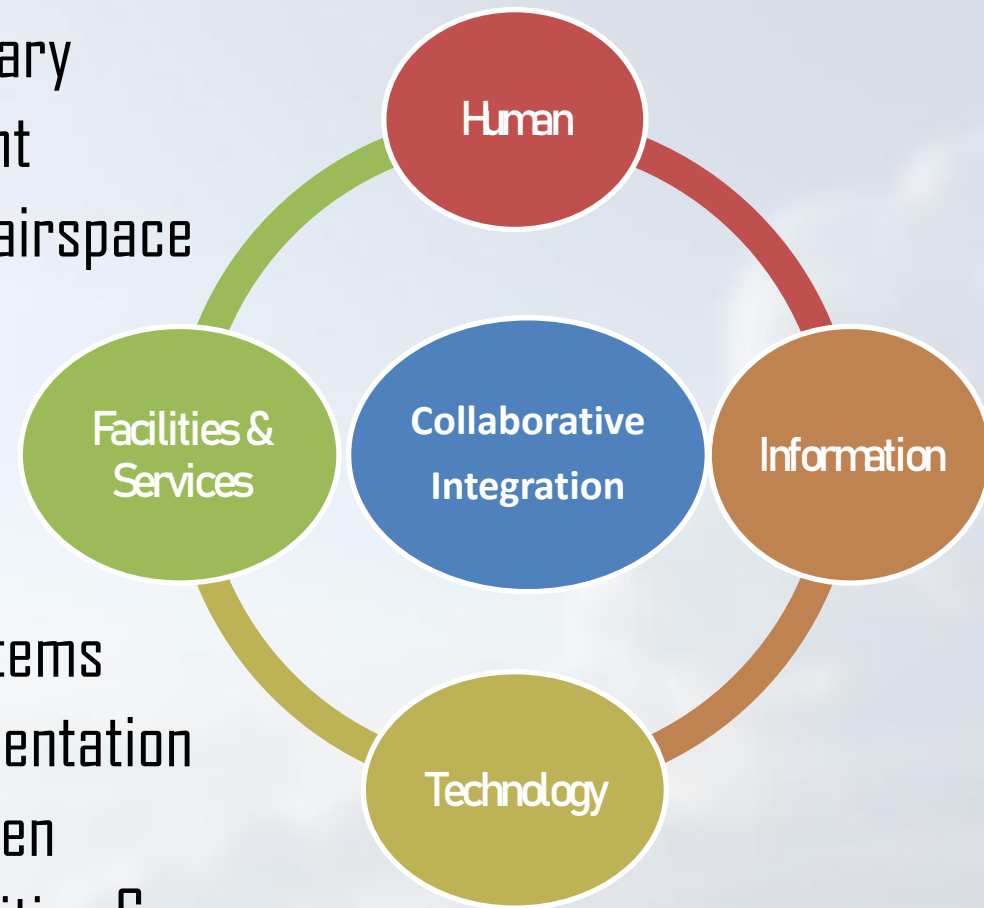
- Documents:
- a) Assessment result (Airnav)
 - b) UAS registration (DKPPU)
 - c) Remote Pilot Certificate (DKPPU)
 - d) Security Clearance (TNI AU)
 - e) UAS authorization (DNP)



3. Improvement Stepping



Currently, Indonesia is in the preliminary stages by conducting UTM development studies for UAS operation in national airspace



Refer to ICAO Unmanned Aircraft Systems Traffic Management (UTM) the implementation needs collaborative integration between Human, Information, Technology, Facilities & Services.





- ❑ To minimize Un-authorized operation and Un-familiar with the rules. Indonesia conduct socialization, engage drone community to inform the rules to others and Providing mapping online system to educate and inform either fly zone & no fly zone and also the requirements.
- ❑ To optimize the operation authorization mechanism, Indonesia develop integrated mechanism/system between related entities.
- ❑ For UAS operation in the military area, Indonesia engage military entities.



