



2018
World ATM Congress



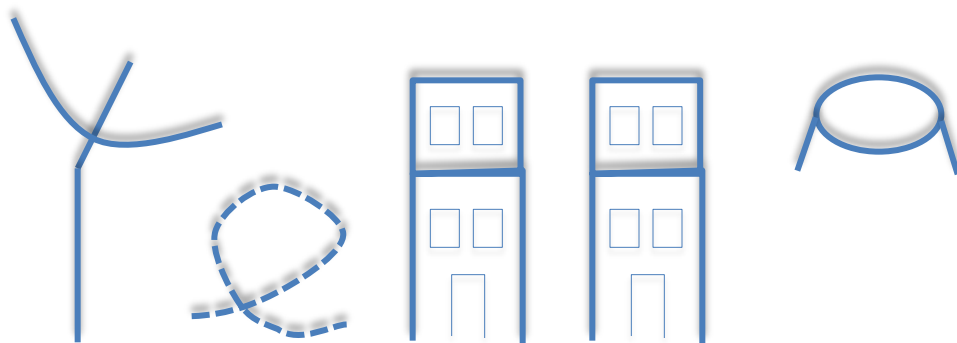
SESAR walking tours

WALKING TOUR 11

Technological European Research for RPAS in ATM (TERRA)

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TERRA Consortium



Project Number	763831
Project Acronym	TERRA
Project Name	Technological European Research for RPAS in ATM
Start Date	01/10/2017
Duration	24 Months
Call/Topic	H2020-SESAR-2016-1/RPAS 04: Ground Systems



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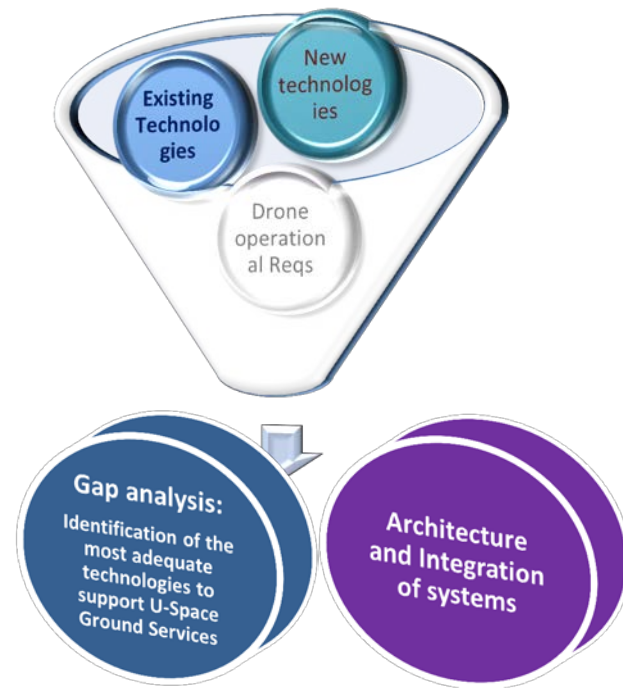
TERRA scope

The TERRA project aims to leverage **existing state-of-the-art and potential new technologies**, to develop elements of a **ground-based U-Space architecture** that will accommodate a large base of **RPAS in a mixed mode (manned and unmanned)** environment.

The TERRA project, taking into account:

- drones user needs
- existing state-of-the-art
- potential new technologies,

will propose an array of technologies and a recommended architecture of ground systems to meet these requirements.



Objectives

Leverage existing state-of-the-art, and potential new technologies, to develop elements of a ground-based UTM architecture that will:

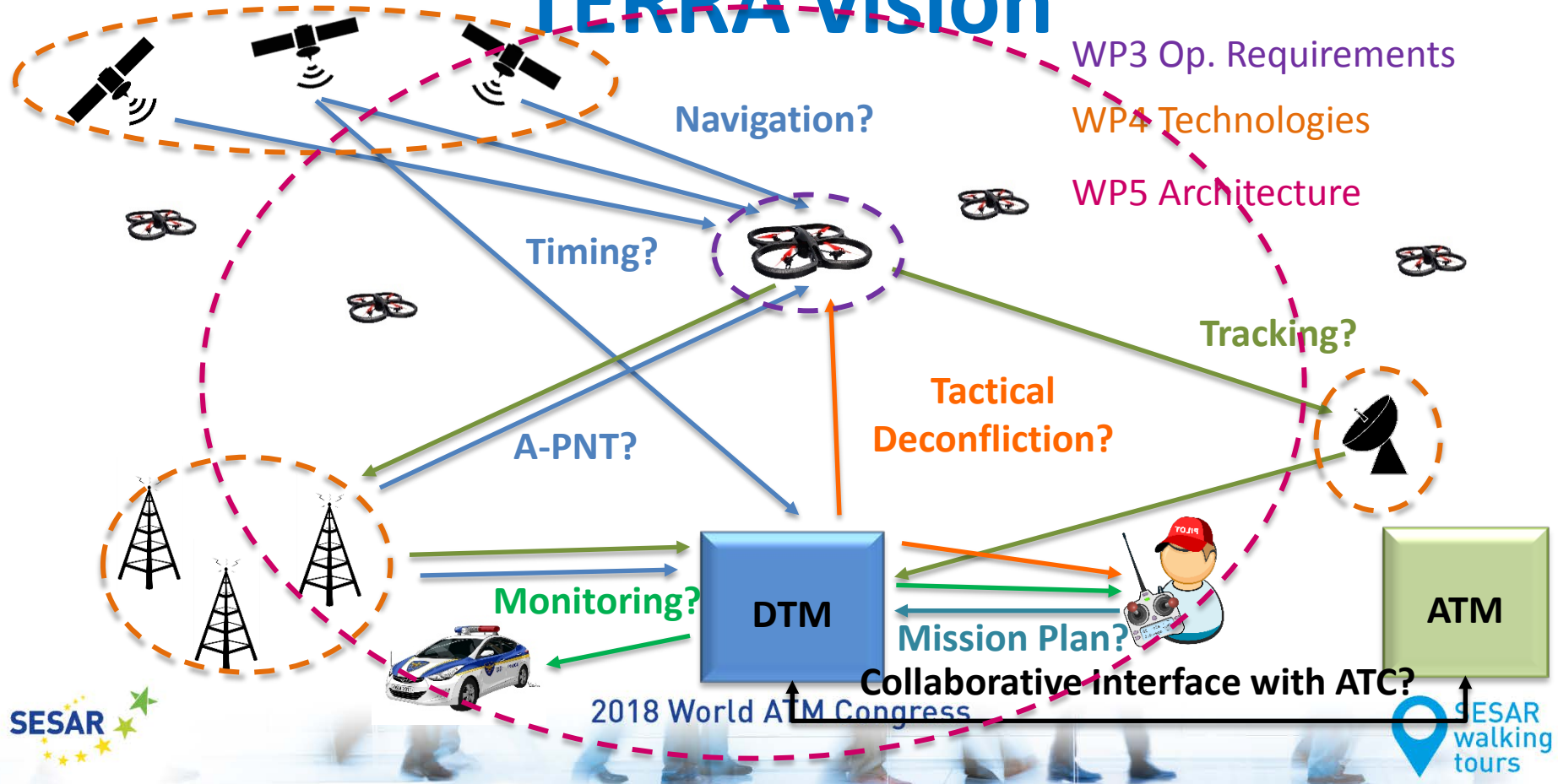
- a. accommodate a large base of UAS (autonomous and remotely piloted);
- b. in a mixed mode (manned and unmanned) environment;
- c. focused on VLL operations, with potential extension to other flight domains;
- d. paving the way for autonomous operations.



Demonstrate proof-of-concept of critical elements of this architecture:

- a. Explore architecture's resilience to off-nominal operations (e.g. ADS-B link loss, GPS outages, etc).
- b. Machine learning: early detection and classification of flight path trajectories, including potential off-nominal deviations
- c. Ability to accommodate various hypothetical (drone and manned) traffic levels.
- d. Explore a matrix of concept of operation for different scenarios, from modern day to fully autonomous.

TERRA vision



TERRA contribution to U-Space

