

Deployment Scenario Title	U-space U3 — advanced services
Deployment Scenario Description	U-space U3 — advanced services: this deployment scenario will build on the experience gained in U2 and will unlock new and enhanced applications and mission types in high-density and high-complexity areas. New technologies, automated detect and avoid (DAA) functionalities and more reliable means of communication, including V2X (), will enable a significant increase in operations in all environments and will reinforce interfaces with ATM/ATC and manned aviation. This is where the most significant growth in drone operations is expected to occur, especially in urban areas, with the initiation of new types of operations, such as air urban mobility. The U-space advanced services will include at minimum the following: dynamic geo-fencing, collaborative interface with ATC, tactical deconfliction and dynamic capacity management.
Essential Operational Change	U-space services
Maturity	In development phase: Key R&D Activities

Applicable Operating Environment			
Airport	Terminal Airspace	En-Route	Network

Timeline																					
2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035

Performance Contribution of the DS				
Capacity	Safety	Environment	Cost-efficiency	Operational efficiency

Stakeholders affected (at least one enabler to be deployed)						
ANSP		AO		AU		Network Manager
Civil	Military	Civil	Military	Civil	Military	

SESAR Solutions			
Solution Code	Solution Title	Solution Description	Related Elements
U3S-01	Dynamic geo-fencing service	Compared to tactical geo-fencing in U2, the dynamic geo-fencing targets the drone itself and then...	PJ DS EOC
U3S-02	Tactical de-confliction service	The tactical de-confliction service provides information to the operators or the drones to ensure...	PJ DS EOC
U3S-03	Collaborative interface with ATC service	The service provides a mechanism to ensure proper effective coordination when drone operations...	PJ DS EOC
U3S-04	Dynamic capacity management service	Upon the definition of drone density thresholds (that can be dynamically modified), the service...	PJ DS EOC

Operational Improvement Steps			
OI Step Code	OI Step Title	OI Step Description	Related Elements
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Enablers						
Required/ Optional	New/ Inherited	Develop/ Use	Enabler Code	Enabler Title	Enabler Description	Related Elements
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