

Q&A



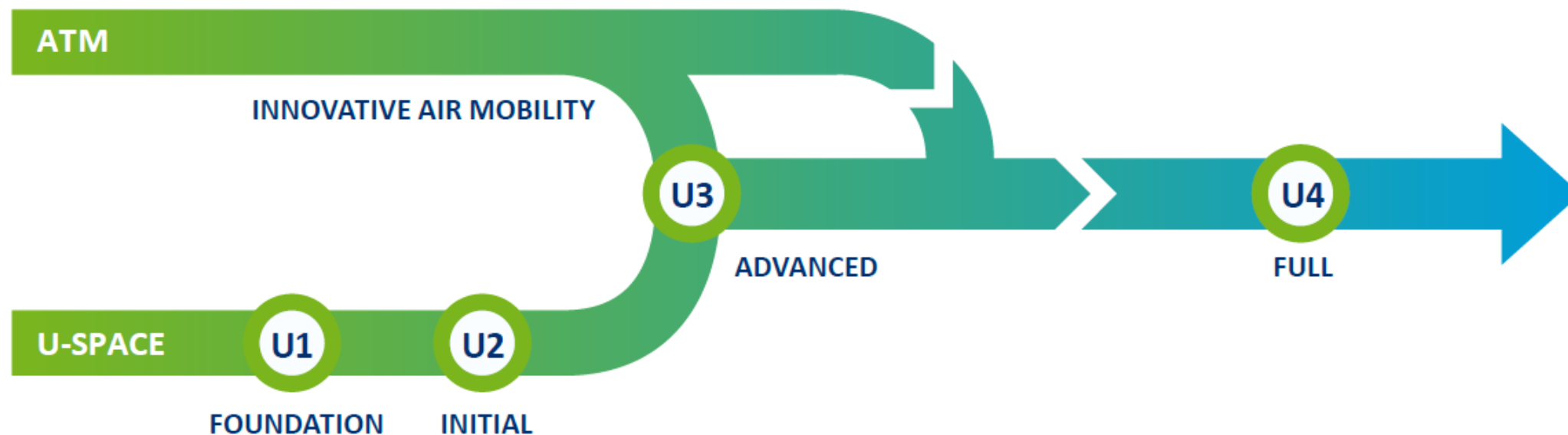
SJU - U-space Programme From Research to Implementation

Brussels

23 October 2025

U-space : ATM MP edition 2025

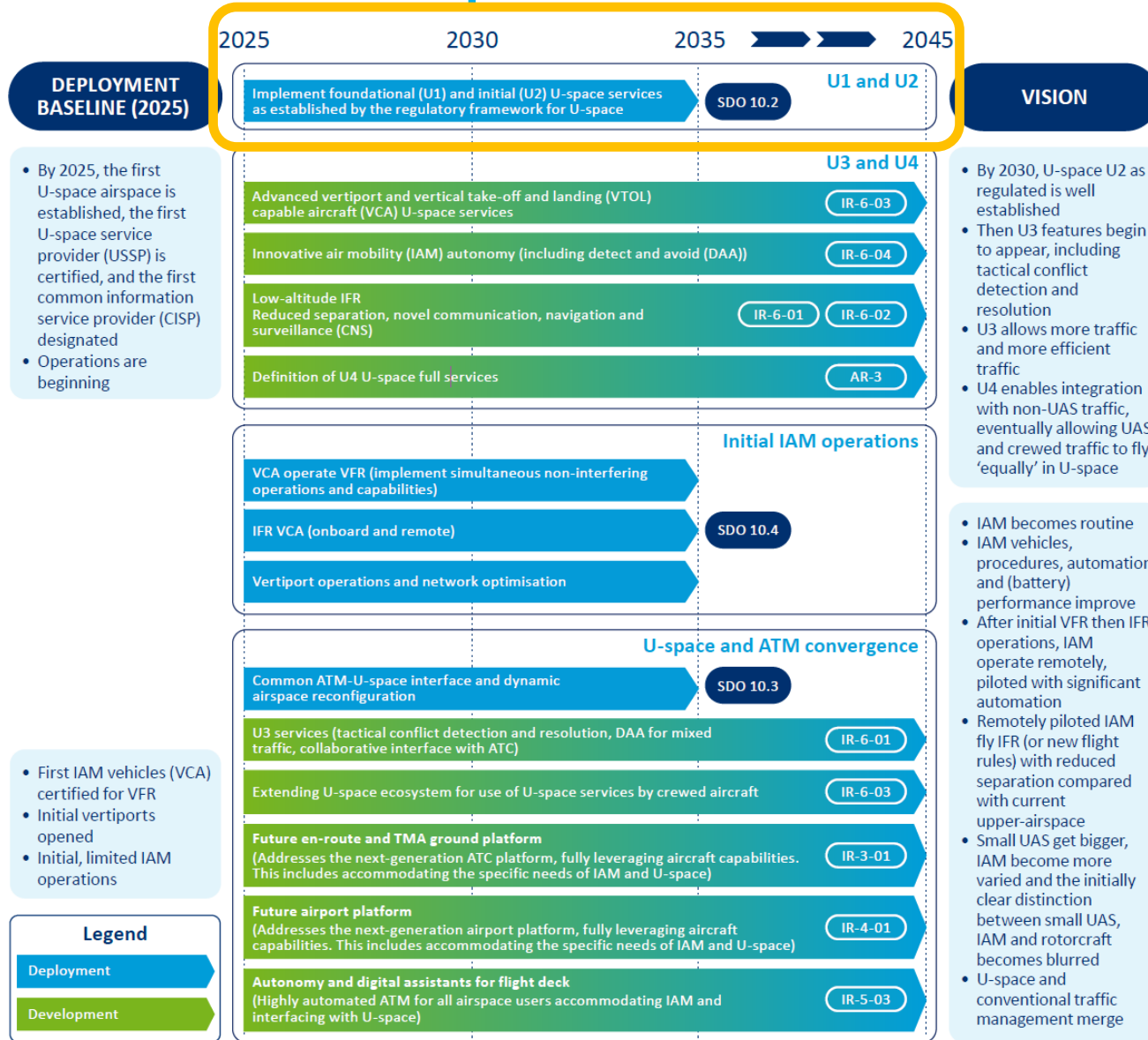
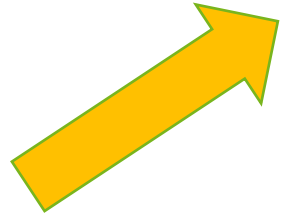
➔ U-space – ATM convergence (full implementation)



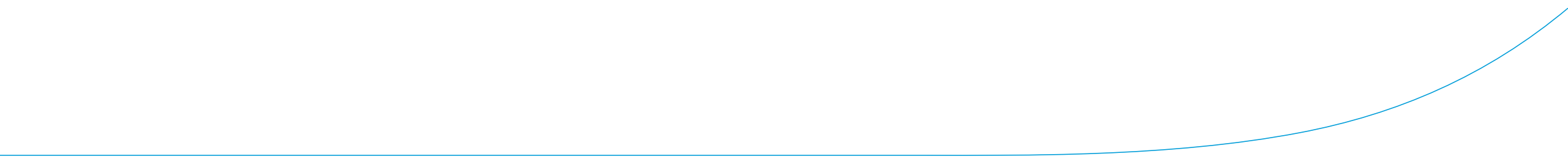
Increased levels of CONNECTIVITY between vehicles (V2V) and between vehicles and infrastructure (V2I) and between infrastructures (I2I)

From AUTOMATION to AUTONOMY

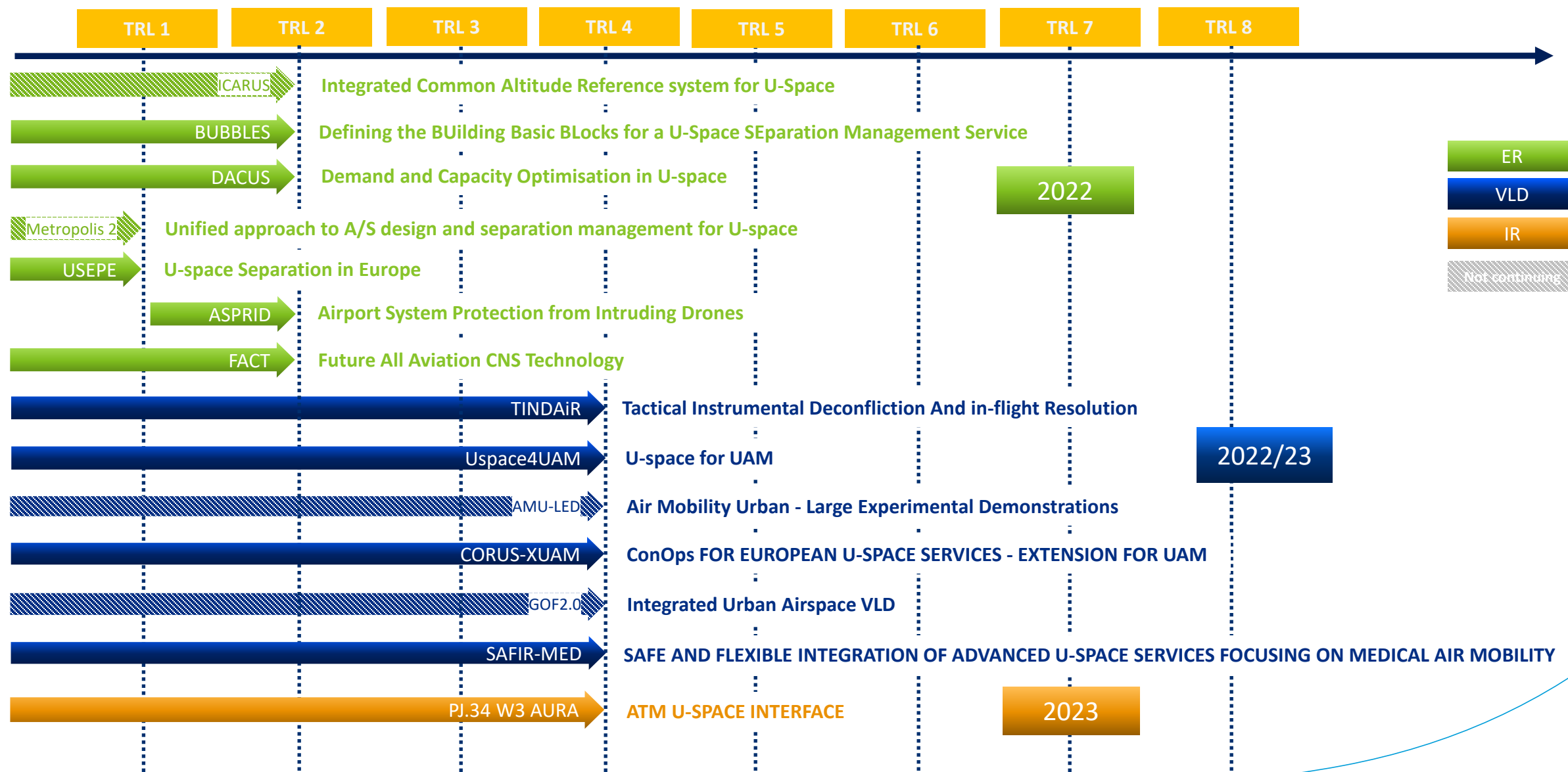
U-space 2.0 : Roadmap in ATM MP edition 2025



SESAR JU - U-space Programme current status

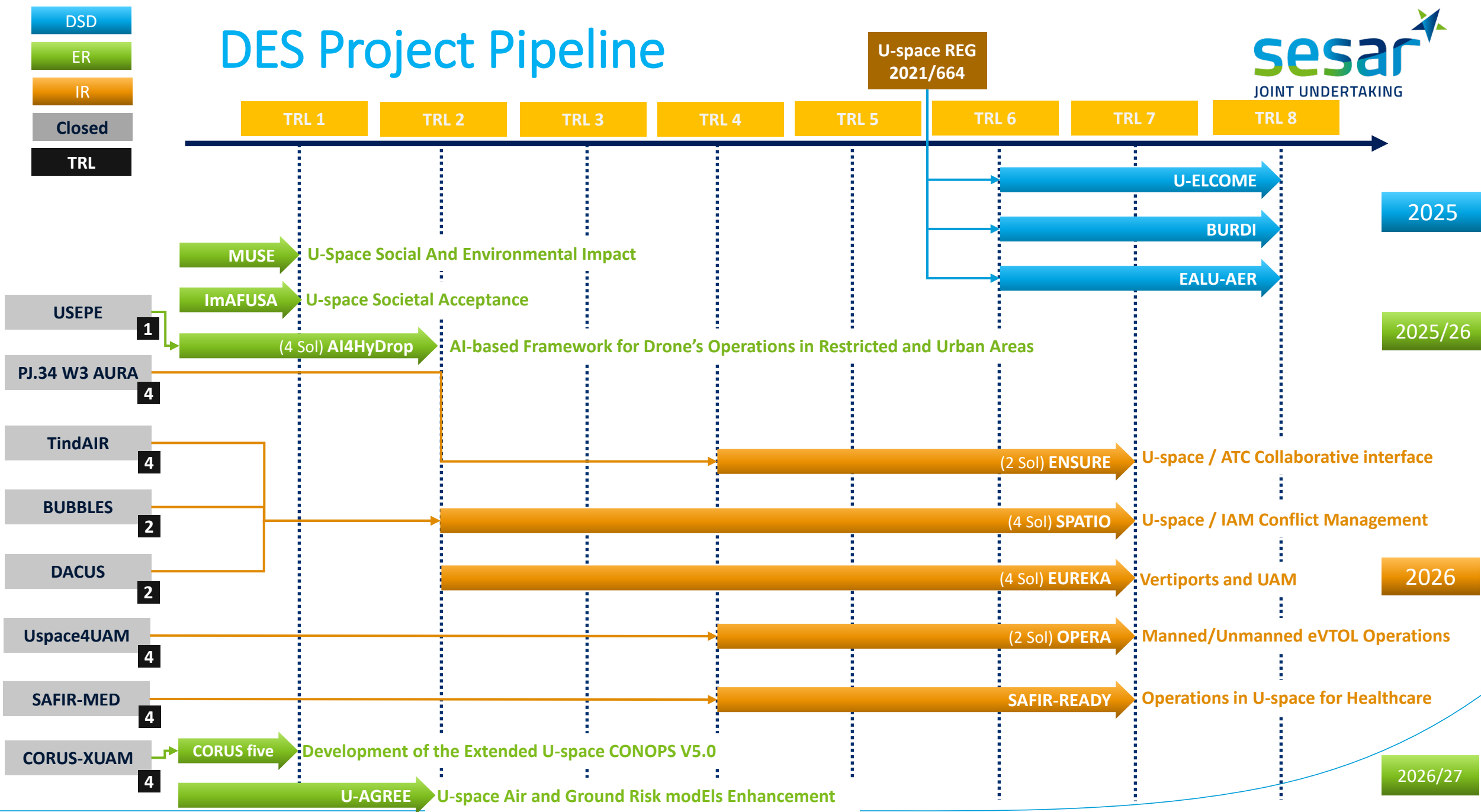


SESAR 2020 Projects



DES Project Pipeline

U-space REG
2021/664



FLAGSHIPS

FUNDAMENTAL
RESEARCH

ATM APPLICATION-
ORIENTED RESEARCH

INDUSTRIAL RESEARCH
PHASE D PHASE C

FAST TRACK
INNOVATION AND
UPTAKE

DIGITAL SKY
DEMONSTRATORS

	ASTAIR HYPER Solver		CODA ANTENNAE	ASTONISH SATERA	FCDI	MIAR		ESMA
			ATMACA RESPONSE	TADA	SOLO ECHO 2	NETWORK TBO ATC-TBO	IRINA FCA	
	HUCAN ANTICIPATE	DEEPFLOW	SMARTS		ISLAND		FASTNET KAIROS	
	IMAFUSA MUSE	CORUS FIVE U-AGREE	AI4HYDROP				EUREKA OPERA	SAFIR-READY ENSURE SPATIO
								BURDI EALU-AER
	SEC-AIRSPACE	VISORS			ISNAP	IFAV3	CNS DSP	VITACY
	MAIA	PRIAM	MULTIMODX		TRAVEL WISE		SIGN-AIR	
	AEROPLANE E-CONTRAIL	F4ECLIM	GREEN-GEAR	STEPLESS	CICONIA CONCERTO	GALAAD DYN-MARS	GEESE	ECHOES HERON
	SYNTHAIR TRUSTY	ORCI	ASTRA AWARE	DIALOG	JARVIS		DARWIN	
	ATM-EXCITE				MITRANO	HARMONIC		

Knowledge transfer

ENGAGE 2

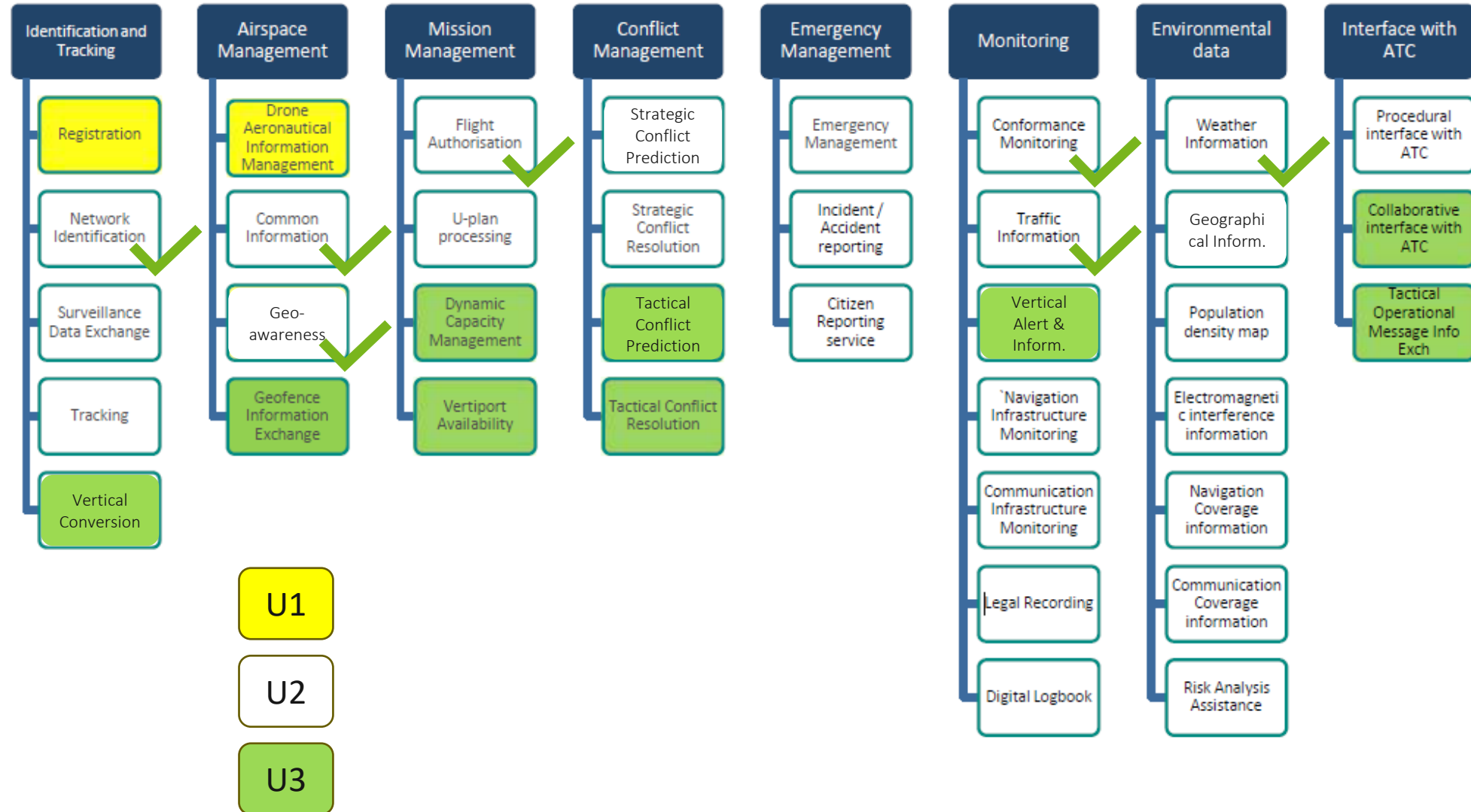
Transversal

AMPLE3

PEARL

U-space flagship – Gaps

U-space services – ConOps Ed.4 Baseline



2025 R&I U-space call topics – IR2

☐ Complete U2 services

- ☐ Geo-awareness
- ☐ Net ID

☐ U3 advanced services

- ☐ Collaborative interface with ATM (drones in ATC-controlled areas)
- ☐ Tactical conflict detection & resolution
- ☐ Fairness & Equity in strategic deconfliction
- ☐ Enhanced drone flight authorisation processes (for IAM also)
- ☐ Enhanced Geofencing service
- ☐ Low-ground-risk DAA-based drone operations
- ☐ Separation crewed VFR and drones
- ☐ Counter UAS C-UAS) systems' services for airport operations
- ☐ Advanced data exchange & communication service
- ☐ Mitigation of socio-environmental impacts

☐ Extension of U-space ecosystem

- ☐ E-conspicuity
- ☐ Integration of drones and crewed aircraft in shared geozones
- ☐ U-space services for certified (crewed or uncrewed) aircraft

☐ Enabling innovative air mobility (IAM) / Vertical take-off and landing capable aircraft (VCA) for crewed & uncrewed operations

- ☐ Vertiport management for crewed VCA
- ☐ Advanced vertiport and VCA U-space services
- ☐ Crewed IFR VCA
- ☐ Automation of the VCA cockpit and remote pilot's working position
- ☐ Automatic take-off & landing (ATOL) for crewed or uncrewed VCA and helicopters
- ☐ ATC and flight information service (FIS) automation support

☐ CNS capabilities

- ☐ Altimetry for VLL
- ☐ CNS infrastructure monitoring
- ☐ Cellular networks (LTE/4G/5G/6G) for low altitude operations
- ☐ Low-cost CNS solutions for vertiports and regional airports
- ☐ CNS capabilities for U-space, UAS and military integration

Conclusions & Way ahead



- ❑ Open the critical path to market uptake for U-space.
- ❑ Support the pragmatic implementation of eVTOL operations.
- ❑ Not finished yet
 - ❑ - Robust U-space programme but still many area to develop (26 topics in the current call) with reduced budget (-60%).

Q&A



THANK YOU FOR
YOUR ATTENTION....