

ARTES 4.0 PLANNED 4S ACTIVITIES SUMMARY TABLE

Activity Ref.	Title	Cost	Classification	Cost (K€) (Baseline)	Cost (K€) (Request)	Proc. Policy	Intended ITT issue quarter / intended ITT issue week	Closing date ITT	ITT (re-)issued	Status comment	originally approved in Work Plan
SPACE SYSTEMS FOR SAFETY AND SECURITY (4S)											
SYSTEM/ NETWORK / PROTOCOLS											
System, Networking and Management											
3A.150	Next Generation 4S Satcom Solutions -including possible future components of an EU Connectivity infrastructure (re-issue)	3,000	B	3,000	0	C			Y	proposed for cancellation	2021
3A.154	Satellite-based voice connectivity over IP for the Next Generation Emergency Call (NG eCall) (4S.012) (re-issue)	500	B	500	0	C			Y	negotiation	2022
3A.172	Resilient and secure multimedia communications from unmanned aerial/maritime vehicles using multiple available networks	600	R	0	600	C1	n/a				2023
3A.173	Resilient distributed network management for secure satellite constellations	500	B	500	0	C	Q4 2023				2023
3A.180	Secure and application-selective multicasting in multi-layer satellite constellation networks (re-issue)	500	B	500	0	C		21/11/23	Y		2023
Coding, Modulation and Access											
3C.025	System simulator for UAV terminal development (4S.007) (re-issue)	400	B	400	0	C			Y	awarded	2021
Security and Cryptography											
3D.013	Multi-purpose Quantum Key Distribution receiver for optical ground stations	950	B	950	0	C	Q4 2023				2023
3D.014	Anti-jamming techniques using artificial intelligence for frequency hopping wavetorms (initiation requested by DLR ^(*))	500	B	500	0	C			Y	evaluation	2023
3D.015	Cyber resilience framework for space communication systems	400	B	400	0	C			Y	evaluation	2023
3D.016	Scalable public key infrastructure concept for large constellation secure communications	500	B	500	0	C		20/12/23	Y		2023
3D.017	Lightweight post-quantum key exchange protocol for IP data transfers over satellite (re-issue)	600	B	600	0	C		30/11/23	Y		2023
3D.018	Security assessment, testing and validation capability for innovative secure communications and quantum technologies	1,500	B	1500	0	C		13/02/224	Y		2023
3D.019	Cyber-range testbed for satellite communications physical and data link layers	750	B	750	0	C			Y	evaluation	2023
SPACE SEGMENT - PLATFORM											
Command and Data Handling											
4G.041	Ka-band radio frequency front-end resistant to intentional interference for secure TT&C	600	B	600	0	C	Q4 2023				2023
SPACE SEGMENT - PAYLOAD											
Payload - System and Architecture											
5A.082	Breadboarding of critical technologies for a multi-beam satellite receiver for the geo-localisation of aircraft MODE-S signals	900	R	0	900	C	n/a				2023
Repeater Equipment											
5C.469	Trusted Platform Module for SmallSat Platforms (4S.019) (re-issue)	750	B	750	0	C2			Y	evaluation	2022
5C.481	Radio spectrum situational awareness functions embedded in telecommand/telemetry receivers	600	B	600	0	C		21/12/23	U		2023
5C.482	Highly integrated beamforming networks for governmental X-band applications	1,200	B	1,200	0	C			Y	negotiation	2023
5C.483	Robust timing and synchronisation techniques for secure communications	800	B	800	0	C			Y	evaluation	2023
USER TERMINALS											
Professional User Terminals											
7A.073	Array Antenna with Directional Modulation for secure governmental satcom User terminal	750	B	750	0	C		10/01/24	Y		2023
User Terminals Mobile											
7C.073	Compact, reliable multi-band antenna for maritime search and rescue (4S.023) (re-issue)	450	B	450	0	C			Y	proposed for cancellation	2022
7C.078	Time reference for portable terminals used in secure communications	700	B	700	0	C	Q4 2023				2023
TOTAL (k€)		17,450		15,950	1,500						

(*) R activity for which a request for initiation has been received

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Please note: **Baseline (B)**: these activities will be automatically initiated.

On Delegation Request (R): these activities will only be initiated on the explicit request of at least one delegation.

Procurement Policy definitions:

C : Activities in open competition without any further restrictions.

C1: Activities in open competition limited to non-Large System Integrators (LSIs) as prime. LSIs are allowed to participate as sub-contractors.

C2: Activities in open competition, where a significant participation of non-LSIs is requested.

C3: Activity restricted to SMEs & R&D organisations, preferably in cooperation.

C4: Activities in open competition, subject to the SME subcontracting clause.

https://www.esa.int/About_Us/Business_with_ESA/Small_and_Medium_Sized_Enterprises/Opportunities_for_SMEs/Procurement_policy_on_fair_access_for_SMEs_-_the_C1-C4_Clauses