

Document Details: Clarification Q&A in response to the call for proposalsChallenge: **Security watermarks for physical documents**

Deadline for questions: 21/10/2025

#	Question	Answer
1.	Paper format and feed: Should we prioritise A-series cut sheets (A4/A5/A3) per ISO 216, or roll stock? If cut sheets, any guidance on stack height and desired throughput?	A4 watermark to register - Ream Wrapped
2.	Techniques in scope: How many watermarking techniques would you like the unit to conduct per paper (do you have such a requirement, or 1 technique per paper will be adequate? e.g., combination of laser-induced translucency, micro-embossing, UV/chemical features, threads/fibres/planchettes? Any exclusions?	All in play - Cylinder mould, Fourdrinier, something that is repeatable across different designs
3.	Substrates: Please confirm the paper composition and UV-dull requirement (no OBAs). Are synthetic security substrates (e.g., Teslin) acceptable for feasibility trials, alongside cotton/linen security papers?	UV Dead - synthetic substrates are of interest
4.	Process flow: If we demonstrate more than one technique with cut sheets, should module transfers be operator-assisted or fully automated in the MVP? Is	Due to volume, expected to produce 5000 sheets, we would expect Semi/Fully automated

	there a cycle-time target per sheet for a 5000-sheet batch?	
5.	Controller/HMI: Would you accept an industrial PC/SBC with LinuxCNC/GRBL (G-code reprogramming for rapid design changes), or do you prefer an industrial CNC such as Siemens SINUMERIK 808D?	Images likely generated using ADOBE Products
6.	Inspection and acceptance: May we propose a pass/fail plan based on transmitted-light contrast and positional tolerance (aligned to ISO 2471/2470 for opacity/brightness), and submit a mini spec for sign-off? Or do you have a specific requirement to share with us?	We think that is acceptable
7.	SWaP and site: Any limits for footprint/weight/power (e.g., <1.5 m ² , <150 kg, single-phase 230 V/13 A), or cleanliness/noise constraints for the intended site?	This would be a significant obstacle, unless we were able to house offsite
8.	Safety and emissions: Do you have preferred fume extractors or limits for particulates/VOCs for laser processing?	We do have ducting on site, response to no. 7 refers
9.	Expected volume: How many units will you be interested in purchasing at the end of week 12?	Can you clarify whether this refers to machinery or paper run

10.	Is it acceptable to assume that the recipient of a signed document will have access to common devices such as a smartphone with a camera, and can use an app as part of the verification process?	No physical paper - The focus of this challenge is on manufacturing techniques to add watermarks to physical documents as opposed to the use of apps or devices for verification.
11.	Is it acceptable to assume that the recipient of a signed document will have Internet connectivity?	No physical paper - The focus of this challenge is on manufacturing techniques to add watermarks to physical documents as opposed to the use of apps or devices for verification.
12.	Is the primary objective to authenticate a specific physical copy of a document, or rather the information contained within it (i.e. would a reprinted but otherwise untampered copy be considered a forgery)?	Originate a watermark into dead UV Dead paper
13.	Is it acceptable to assume that the organisation conducting the watermarking process has access to digital “master” copies of the documents being secured?	Potentially