

Call ID: PING-2024-4–Passenger-Drugs

Full title: Fast non-intrusive screening of passenger flows to detect and deter body-worn drugs.

Summary: *In the context of material identification, and in ‘border operational conditions’, PEN-CP customs partners wish to deploy a real-time, non-invasive screening method that operates without hindering traveller flows at the border, while accurately detecting and identifying such drugs as heroin, cocaine and MDMA smuggled on the body. The Selected Supplier will use their existing technology/product as the basis, and extend its capabilities (additions to reference library, fine-tuning of sensors or algorithms, etc.) to match customs requirements. At the end of the project, PEN-CP customs partners will assess the performance level of the enhanced technology/product – and the results can potentially help shape the future direction of further developments (this would be outside PEN-CP context, as the current project finishes 31.1.2025).*

Context, customs challenge and innovation opportunity

Customs have many responsibilities at the borders of the EU Customs Union, including detecting and deterring smuggling of illicit drugs. One popular method is for the smuggler to conceal illicit drugs on their body, usually under clothing, and then attempt to blend in with the many legitimate travellers crossing the border. Customs process a large number of travellers just to detect this small minority who wish to break laws or harm society. This time-consuming process, although necessary, may ultimately delay legitimate travellers, and at moments of high traffic across the border, potentially could allow smugglers to pass without being checked.

Customs would prefer to focus their efforts on the higher risk minority seeking to evade controls by smuggling illicit drugs on their body. They are therefore seeking technology that is capable of:

- Screening non-invasively, without breaching traveller privacy or rights.
- Being deployed without interfering with the flow of travellers.
- Posing no health risks for travellers or Customs personnel.
- Being commodity-specific for key drugs, and not solely an anomaly detector.
- Providing a high probability of detection (POD) and low false-alarm rate (FAR).
- Guiding the operator to an area of risk on the body by means of an interface.

The customs environment differs significantly from that of aviation security, where all passengers are required to remove outer garments and empty their pockets before being screened. In a customs application, travellers may be wearing or carrying coats, bags and other belongings as they move through a border. Customs require appropriate technology to accurately and seamlessly screen for given threats in this scenario.

There has been considerable investment in the aviation security sector, which is highly regulated. The same level of regulation does not apply to the Customs operational environment. PEN-CP partners believe that some technologies, developed primarily for security or other purposes but not yet adopted (or deemed unsuitable for their intended application), could be beneficial to the customs community. Likewise, technologies which have been successful, or partially successful, in their original application could prove to be valuable Customs tools. A successful technology, integrated seamlessly at a border, would result in an increase in detections of smuggled drugs. This would reduce interventions on legitimate travellers, while strongly deterring those seeking to evade controls.

Innovation Grant: technical elements and expected results

- The Innovation Grant aims to expand or adapt the application of technologies to detect and identify designated drugs - technologies which were primarily designed for non-Customs purposes (including security applications) - for deployment in a customs environment.
- The technology should be largely autonomous, requiring no direct oversight by a Customs officer.
- By the end of the action, the device will be expected to demonstrate accurate detection of cocaine hydrochloride and show potential to detect heroin freebase and MDMA, in operational or near-operational conditions.
- The focus of this Innovation Grant is not on developing new sensors or instruments, but on broadening the application scope of existing technologies. These technologies may already be in use, or may be being designed or developed, for a range of security applications, including the detection of explosives.
- PEN-CP customs partners will support the action by providing samples of relevant drugs threats at a specified location. The selected supplier will be expected to comply with any regulations in force at that location.
- No device or technology that generates ionising radiation will be considered.
- The full IP rights to the device or technology will remain with the selected supplier.

Anticipated project tasks include:

- Live kick-off and user requirement meeting with Customs (or Border Force) in the UK (Sep2024, the exact date to be confirmed as part of the contract process)
- First round of technical development including data capture, using relevant heroin, cocaine and MDMA samples followed by validation.
- Mid-term meeting with customs (online), presenting technical performance so far, and agreeing on details for the second technical development round (Oct/Nov2024)
- Second round of technical development, including determining background false alarm rate, followed by performance testing and establishing POD and FAR, which could lead to pilot.
- Presenting the project outputs and technical results at the Final PEN-CP event (live event in Switzerland, Jan2025).

Common instructions for all PING calls

Announcement of call for proposals

This call for proposals for PEN-CP Innovation Grants (PINGs) is published on the PEN-CP project website at www.pen-cp.net/calls and on the European Commission portal at <https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/home> (the direct link to the EC call text page will not be known at the time that the call is published on the PEN-CP website).

Eligibility of applicants

- The call is targeted for companies and research organizations (as 'legal persons'), which have a well-recognized ID such as a national registration number, a VAT number, etc.
- Proposals from individual persons or consortia are not eligible and will not be considered in the evaluation.
- Proposals from applicants with prior involvement in customs innovation projects are encouraged.

Application process

- Step 1: To express interest, the applicant should send an email to pen-cp@cross-border.org , **specifying the call identifier in the subject line**. The email should include the contact details of the applicant's designated representative, including their email address and phone number.
- Step 2: In a return email, the applicant will receive a designated applicant ID, indicating clearance to proceed with the full proposal submission.
- Step 3: The applicant should submit the full proposal by sending the three required documents to pen-cp@cross-border.org AND pen-cp-arttic@eurtd.com

Required documents for full proposal submission

- Document 1 — Technology starting point, main outputs and expected results
 - Explain the starting point with the technologies you propose to use and/or develop/innovate further.
 - Provide a comprehensive outline of the project's main outputs and results. This may incorporate technical diagrams where appropriate.
 - Please ensure that the document does not exceed 3 pages.
- Document 2 — Methodology, work plan and risk management
 - Detail the methodology, work plan and risk management plan, as well as any accompanying resources such as Gantt charts, person-day allocations, etc.
 - Please ensure that this document does not exceed 3 pages.
- Document 3 — CV of the project manager and CV of a key expert
 - Submit *curricula vitae* (CVs) for the project manager and one other key expert, detailing their respective relevant experience and skills.

- While there is no page limit, we encourage you to follow the Europass standard format.
 - *Additional action: Please include in the project manager CV cover page a web link to a (national) Register of Commerce or similar institution, where the legal entity data is visible. Alternatively, please include a separate extract document on the legal entity data.*
- *Please do not include a financial bid, since the grant amount is pre-determined as described at the end of this document.*

Submission language

- All documents must be in English.

Proposal evaluation and scoring

- Document 1 — Technology starting point, main outputs and expected results (max 42 points, threshold 25 points)
 - Suitability of the technologies / solutions you plan to use for project execution.
 - Feasibility to achieve the planned outputs and results of the project.
 - Anticipated impacts for the broader customs community.
- Document 2 — Methodology, work plan, risk management (max 42 points, threshold 25 points)
 - Proposed approach, techniques, and methodologies for conducting the project.
 - Project timeline with tasks outlined in the work plan, considering organization, scheduling, and resource allocation for efficient project execution.
 - Summary of key project risks and related mitigation measures.
- Document 3 — CV of the project manager and a key expert (max 16 points, threshold 10 points)
 - Capability to effectively carry out technical work and all project tasks.
 - Demonstrated experience and skills relevant to the project.
 - Past involvement in customs innovation projects is viewed favorably.
- *Full proposal: total points max 100 (threshold 60 – aggregation of individual document thresholds).*

Evaluation and contract signing process

- Step 1: Evaluation of all proposals through scoring and ranking.
- Step 2: Selection of the applicant (referred to as the Selected Supplier) with the highest score and initiation of the contractual process.
- Step 3: Notification of evaluation results to all other applicants.
- Step 4: Contracting with the Selected Supplier.
- Step 5: If the contract cannot be finalized with the Selected Supplier, the next highest scoring applicant may be invited for contract negotiation (then proceed with Step 4).

Questions and Answers

- All questions should be addressed to pen-cp@cross-border.org AND pen-cp-arttic@eurtd.com
- *Please specify the call identifier in the subject line of your email.*
- All questions from applicants will be published along with their respective answers at www.pen-cp.net/calls

Publication of evaluation results

- Results of the evaluations will be published in due course at www.pen-cp.net/calls

Innovation Grant Panels

- Each PEN-CP Innovation Grant (PING) has its dedicated Innovation Grant Panel, whose responsibilities will include proposal evaluation, project steering, and assessment of outputs and results.
- The Panels will comprise three PEN-CP experts, at least two of whom will be representatives of PEN-CP member customs administrations.

Dates & deadlines

- Official call publication date: 1 March 2024
- Deadline for proposal submission: 1 June 2024 (by 5pm Brussels time)
- Proposal evaluation results available: 15 June 2024 (target date)
- Project start date: Latest by 1 September 2024 (and earliest on 1 July 2024)
- Project duration: Maximum 5 months (project must finish by 31.1.2025 latest)

Grant amount, payments travel expenses and IP rights

- Grant amount: 59.500 EUR (fixed)
- Payment terms: The grant will be paid in two installments: 60% upon project kick-off, and the remaining 40% following the delivery and presentation of final outputs and results at the designated PEN-CP event.
- The Selected Supplier will be responsible for covering the expenses related to two trips for attendance at live project meetings, which include the kick-off and the final presentation.
- IP rights issues, including possible transfers, are explained separately in each PING call.

Contact person for all queries

Valentina Scioneri, PEN-CP Administrator, Cross-border Research Association (CBRA), valentina@cross-border.org, tel & WhatsApp +39 334 159 8179