PEN-CP MAGAZINE

Pan-European Network of Customs Practitioners

PEN-CP & 13 European Customs Partners: from Innovation Observers to Innovation Drivers - Part 2

Editorial

Dear PEN-CP Magazine Readers,

The Irish Revenue Commissioners, the PEN-CP Management Team and the Magazine Editorial Team welcome wholeheartedly the near 60 participants to Dublin Castle, for our Year 3 Annual Event, organized here in the capital city of Ireland during 20-22 April 2022.

After 2.5 years from our previous live meeting, the Year 1 event in Budapest, Hungary, it is really great to meet everyone again face to face. Our 2.5-day long agenda is filled with speeches, presentations, demonstrations and breakout sessions delivered or facilitated by some 16 experts from the PEN-CP consortium; by 5 Pen-CP Advisory Board Members; and by 7 external guests, representing EC DG HOME, DG TAXUD, DG REFORM, Research Executive Agency, CELBET, UK Home Office and Enterprise Ireland.

We look forward also to the networking opportunities and free time activities, in particular the main dinner event on Thursday evening. Big thanks to the Irish team – Ruth, Kevin & co – for making the full event happen!

Juha Hintsa

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PEN-CP Expert Teams – the three PETs

The three technical customs themes have played a central role in PEN-CP, from day one of our project. As envisioned already in our Horizon2020 proposal (written during years 2016-17), big part of PEN-CP's innovation boosting activities and innovation instruments take place in the context of a specific technical theme, sometimes as combinations of two or even all three of them.

In 2020, we established following three Expert Teams, PETs as we call them, to drive the user need identification, prioritization, and finetuning work; to propose and agree on the innovation instrument usage; among few other key activities in PEN-CP:

• **PET-1 Data and risks** (6 active members from 5 different administrations, status March 2022)

• **PET-2 Detection technologies** (6 active members from 6 administrations)

• **PET-3 Laboratory equipment** (5 active members from 5 administrations)

Each PET-team is chaired by a seasoned technical expert from PEN-CP Customs partners, while secretarial support is provided by PEN-CP research and administrative partners. Multiple meetings were held in 2020-2021, all organized virtually; in 2022, we plan to also have two physical meetings (Dublin in April, and Maastricht in October 2022), next to a handful of virtual PET sessions.

When it comes to specific objectives and actions with the PET-teams, they have of course full freedom to set and follow agendas agreed among the team members. The overall PET-menu includes the following innovation facilitation and boosting activities:

• **Collecting, iterating, elaborating and fine-tuning on Customs User needs and Challenges, the PUNIs;** aiming to the adequate degree of detail and clarity so that next-step innovation boosting actions can be successfully triggered.

• **Matchmaking between prioritized PUNIs versus Security Innovation Monitoring items, the PSIMs;** aiming to discover any existing technologies, solutions and projects which might be of instant use/ benefit for Customs.

• In the context of high-priority PUNIs, without "instant solutions on the markets": i**terating and allocating one or more PEN-CP Innovation Instruments, the PINs**, in order to start tackling the Customs challenge/ PUNI on hand; could trigger follow-up action such as Expert report, Crowdsourcing ideas, Challenge competition, or Prototype grants.

• Identifying Customs **needs and priorities for technical or process standardization**, and formulating such topics to be part of the PEN-CP Standardization roadmap (note: actual standards development is out-of-scope for PEN-CP)

• Preparing and proposing **specific discussion points and messages, PEN-CP Briefings, towards a variety of key stakeholders,** including the following: DG TAXUD, DG HOME, DG REFORM, CELBET, CLEN, WCO, Horizon Europe program, and parallel Customs-relevant Research and Innovation projects and networks.

PEN-CP Innovation Awards and Prizes

The purpose of the **PEN-CP Innovation Awards and Prizes i**s to bring in limelight the most innovative solutions and, to some extent, solution ideas, in the context of a broad variety of challenges contemporary Customs administrations are facing.

During years 2019 to 2021, we have executed three sets of Customs Innovation Award calls, all with somewhat different scopes, submission formats, and scoring criteria.

First, in 2019, we introduced a broad innovation award scope, named as **"Improvements in existing solutions and technologies, and introduction of new solutions and technologies; improvements in existing processes, as well as introduction of new processes (PCIA-2019)",** attracting seven submissions by different PEN-CP partner administrations. Then, following the voting performed during PEN-CP Year-1 event in Budapest, the submission by UK Border Force on "Using a human security radar screening passengers on the move" was selected as the winner (all PCIA-2019 submissions can be checked in PEN-CP Magazine 11, pages 19-29). Since then, interest has been indicated by few Customs administrations, to follow-up with some of the PCIA-2019 submissions; this all in the frame of PEN-CP's Innovation upscaling and Resource pooling ambitions.

Second, in 2020, based on the PET-1 and PET-3 work with the actual Customs User Needs and Challenges, i.e. the PUNIs, we published the following two innovation award calls, both receiving multiple submissions by PEN-CP partner administrations: (i) **"Novel approaches to cope with the growing international e-commerce traffic (PCIA-2020-PET-1)"**; and (ii) **"Future opportunities with mobile laboratory capabilities (PCIA-2020-PET-3)"**.

The winning submission of the PET-1 topic was titled as "e-commerce in an integrated data approach" (by Dutch Customs); and the winning submission of the PET-3 topic was titled as "New applications for mobile FTIR-instruments in the field – from the detection of gasoil fraud to screening of cannabis" (by Belgian Customs). We plan to revisit the submission topics during our Year-3 event (April 2022), encouraging PEN-CP Customs partners to get in contact with their peers who were behind the most exciting PCIA-2020 innovation submissions.

Third, in 2021, we invited the global Customs community to join our Customs Innovation Award action under following thematic: **"Actions and ideas from customs that demonstrate innovative approaches to data quality; with two tracks: one for tested solutions and other for novel ideas (GCIA-2021)".** The winners of the GCIA-2021 will be announced during spring 2022.

While we still plan to run a few "Customs only Innovation Awards" from 2022 onwards, our main focus will shift next towards **"PEN-CP Innovation Prizes"**, where the winners will come from the external innovator communities, including start-ups and scale-ups; small, medium and large companies; research organizations and Universities etc. More information is coming by summer 2022 – please stay tuned for the updates!

PEN-CP Expert Reports

The purpose of **PEN-CP Expert Reports** is to fill knowledge gaps among our Customs practitioner network, either (i) per stand-alone information needs or (ii) as step-1 action in an (anticipated) longer chain of knowledge creation and innovation boosting actions. Calls for new Expert Reports, ERs, can be triggered either by needs of individual Customs partners, or, by the PET-teams. Following a simple call procedure, the most suitable expert is chosen to carry out the work, and to deliver a report to answer the information needs, in a relatively short timeframe. The available grant amount typically enables some 20-25 person days of work, carried out over a 3-4 month timeline. Monthly supervision by a small team of PEN-CP experts has proven to be a good approach. Next to the written report, the experts are invited to present their findings either during a Penday event, or, at the next Annual Event.

Between years 2019 and 2021, the following five Expert Reports were triggered by PEN-CP partners and completed by the selected external experts; all reports listed below with a variety of follow-up actions either implemented or outlined:
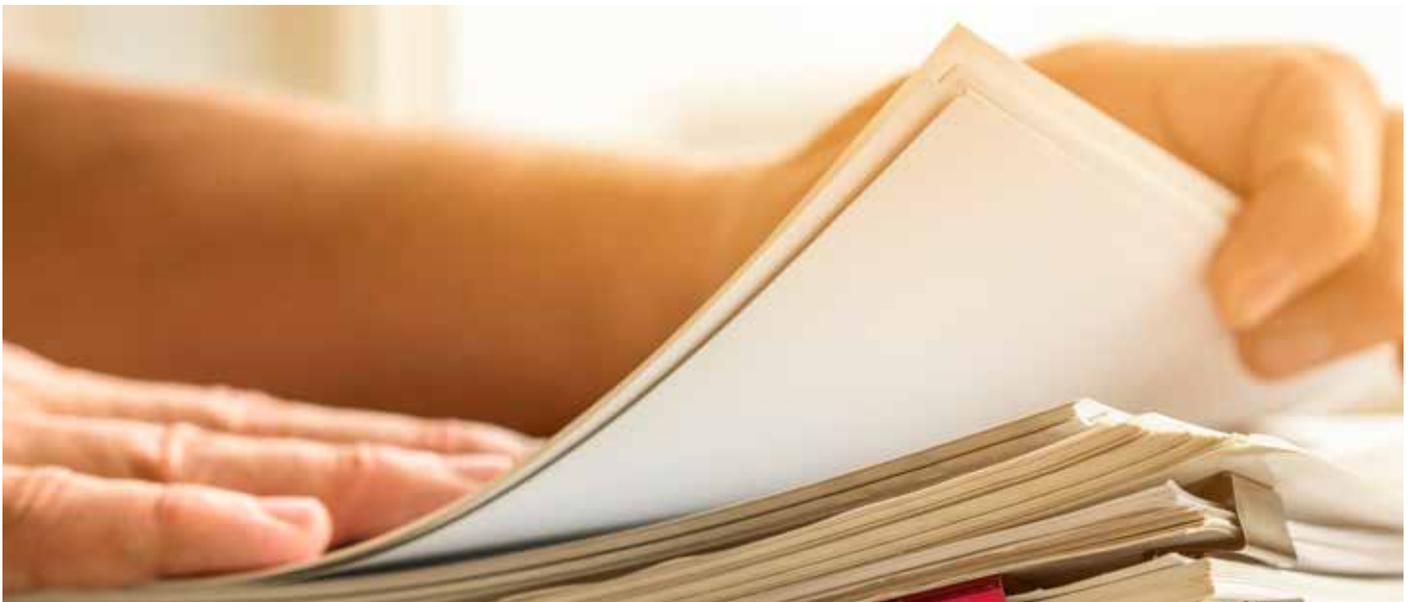
• **"Mapping of European start-up/scale-up landscape (ER1)"**; today (spring 2022), the lead author of this report, from the European Start-up Network, Belgium, sits in the PEN-CP Advisory Board, and has started to supervise us about exploiting the ER1 outcomes, some 90 innovators inserted in the POP database, for our upcoming Open Innovation and other calls.

• **"Future of Customs communication toolboxes: useful features and user experiences (as two reports, ER2&ER3)"**; today, we are already benefiting the outcomes of these two reports, when considering various upgrading options for the future PEN-CP communication tools and platforms.

• **"Review of databases on laboratory techniques and methods for the analysis of new materials or products (ER4)"**; today, this report is in the hands of PET-3 team members, who are considering how to best make it available for a broader Customs laboratory expert community.

• **"Mapping national innovation calls in three EU Countries: Sweden, Germany and Spain (ER5)"**; this latest PEN-CP Expert Report was presented to the full PEN-CP consortium, during Penday-March, by the authors from German Aerospace Center (DLR), and the follow-up actions, including entering the national innovation project data into POP platform (as PSIMs), will take place during spring 2022.

PEN-CP budget allows the delivery of **another ten Expert Reports**, and the next round of 2-3 new reports is likely to be triggered latest by summer 2022 – check the topics on our Innovation instruments and events webpage and inform us of the right expert to do the job! https://cmt.sym.place/groups/profile/302707/pen-cp-innovation-instruments-and-innovation-events

PEN-CP Annual Studies

Annual Studies are the flagship knowledge creation instruments in PEN-CP, and so far, we have produced and published two of them. The first study **"Enhancing Customs Risk Management with External Data"** explores the data landscapes of today's customs world, arguing that external data can enrich actual declaration data, providing additional data elements for customs to verify and base risk assessment on.

The second study, **"Customs Innovations for Fighting Fraud and Trafficking in Cross-border Parcel Flows"**, showcases customs innovations tackling the challenges of cross-border parcel controls, from around the world. The full reports can be downloaded from: https://www.pen-cp. net/announcements

According to the PEN-CP internal procedures, the detailed scope, priorities and research questions for each study are discussed and agreed by the PEN-CP partners, before the full launch of a new study. At the moment, we are either working on, or about to launch, following four studies,

with several Customs experts in PEN-CP as co-authors, study panel members etc.:

• **"Estimating the size of illicit markets — techniques and examples for collecting evidence on the volume and value of illegal trade"** (this is already 75% completed, missing the examples/ mini-cases section)

• **"Set of past EU-funded research and innovation projects (from 2005 till 2020): assessing benefits for the Customs community, with evidence of upscaling and uptake of project outcomes"** (on-going study)

• **"Green customs — a conceptual framework and examples of initiatives from around the world"** (recently launched)

• **"Smarter borders through clever innovations – blueprint/ roadmap study"** (detailed scoping still to take place, planned for our Year-3 event in April 2022).

PEN-CP Training Materials

As we all are aware, training and developing personnel is essential to the future success of Customs administrations, in Europe and beyond – thus **production and trials in innovative training materials fall into the mandate of PEN-CP**.

To start with the training material agenda, two years ago PEN-CP surveyed partner administrations on their views on customs training needs and priorities. Next to the majority of PEN-CP Customs partners replying, one additional response was collected from a representative of CELBET, the Customs Eastern and South-Eastern Land Border Expert Group.

Important training themes and topics identified in the survey included for example "Master course for recruitment staff on X-ray image analysis"; "Post-clearance auditing"; "Customs controls on trains"; and, "Cooperation with other agencies at the border".

These, and few other potential training material topics were further analyzed and discussed with multiple PEN-CP experts, triggering the production process for the first two PEN-CP training modules:

 • **"Seal inspection training images and videos"**, and

 • **"Comparison of X-ray images against customs declaration information".**

After releasing the first two modules for pilot learners to test, we will proceed with the production of the next two modules - topics still to be confirmed – work to start by fall 2022. As a parallel activity in training material development, PEN-CP is pleased to include the **"Customs data analyst e-learning course"** materials, placed on Canvas Learning Management System, to become part of the overall PEN-CP training materials agenda.

As of March 2022, we have over 50 hours of self-learning content ready for pilot learners to study and test; materials strongly reflecting the actual research and experimenting outcomes of the EU Horizon 2020 project PROFILE (which just finished, at the end of February 2022).

PEN-CP Standardization Roadmap

The **PEN-CP Standardization roadmap** paves the way for future standardization ambitions and activities within the broader Customs domain, including but not limited to Customs Data analytics, Detection technologies, and Laboratory equipment, i.e. the three technical themes of PEN-CP.

A handful of PEN-CP Customs experts have started to identify specific areas and topics which could benefit from further standardization work, including objective assessment/ measurement of technical performance levels, and, enhancement of device interoperability and data exchange schemes. These efforts may also facilitate joint tendering/ procurement activities between multiple Customs administrations in the future. And, in the long run, our standardization roadmap may facilitate bridging the gap between the customs practitioners' needs and available technologies and services in the markets.

When compared e.g. with the aviation security domain, 'Customs security standards' are near non-existing today – thus, a lot can be done in PEN-CP, even when remaining (just) on a roadmap level.

The Customs Voice

The final PEN-CP activity area presented from years 2018-21 is called **Customs Voice**, where the purpose is to influence various policy and business stakeholders and communities, to the direction PEN-CP Customs partners find it beneficial.

Below we share examples of three types of PEN-CP consultations, where either full implementation cycles or at least concrete preparatory steps have already taken place:

• **Feeding high priority user needs/ PEN-CP PUNIs to Horizon Europe and other Customs relevant Research-Development-Innovation funding programs** – a pro-active consultation cycle was first introduced during summer 2019, and, it has continued with regular feeds of draft ideas and topics into future Work Programs.

• **Submitting statements and suggestions in the frame of Customs-relevant EU policies, roadmaps, directives and the likes** – PEN-CP has contributed for example during the EU Critical infrastructure protection - open consultation (spring 2021).

• **Sending common messages to and interacting with specific Customs-relevant industry sectors** – preparatory steps have taken place in the frame of Raman manufacturers, and first internal discussions are currently taking place regarding seals manufacturers.

PEN-CP plans to continue with Customs Voice activities every now and then in the future, based on topics and opportunities the Customs partners find of importance to them.

Agenda: PEN-CP Year 3 Annual Event –
in Dublin, Ireland, from 20th to 22nd April 2022

Wednesday 20th April

9-9.30am Welcome & opening notes (DG of Irish Customs & CBRA)

9.30-10.30am PEN-CP fundaments (refresher):

• POP, PUNI, PSIM, Prototype grants, Open innovation instruments, Innovation Awards & Prizes, Expert reports, Annual studies & the whole works
• By Trevor Francis (UK Border Force/ GBR), Jonathan Migeotte (BEL Customs), Ron Roelofs (NLD Customs) & Toni Männistö (CBRA)

10.30-10.50am Coffee break

10.50-11.20am Expectations for the Year-3 event – each PEN-CP Customs partner has a 3-minute slot (alphabetical order)

11.20-11.50am Few administrative, deliverable and milestone related updates:

• Including PEN-CP Exploitation plan final delivery by 2/2023;
• A proposal for "PEN-CP Customs Observer" (light) arrangement/ MoU, for non-PEN-CP European Customs (which may allow limited access to POP; to Customs data analyst e-learning platform; to Penday events; etc.);
• An outline for "External data providers & PEN-CP collaboration" MoU; and
• Plans for the next (and hopefully final) Grant Agreement Amendment (May-June 2022); By Juha Hintsa (CBRA)

11.50am-12.40pm First two guest presentations (2 x 15 min speeches & 2 x 10 mins for discussions):

• Overview: Technical Support Instrument managed by DG REFORM by Jenia Peteva (REFORM)
• Overview: Customs Eastern and South-Eastern Land Border Expert Group by Andras Bartha (CELBET)

12.40-2pm Lunch break

2-5pm PEN-CP Expert Teams (PETs): - Three parallel breakout sessions (from 2 to 4pm) and reporting back to plenary (from 4 to 5pm); agenda covers objectives and work plan for 2022, Prototype grants, Innovation prizes, Open innovation instruments etc. (coffee served during breakout sessions)

• PET-1 – session facilitated and reported back in plenary by Jonathan Migeotte (BEL)
• PET-2 – session facilitated and reported back in plenary by Trevor Francis (GBR)
• PET-3 – session facilitated and reported back in plenary by Micha Slegt (NLD Customs; joins remotely)

5-5.40pm Brief demo, latest updates & way forward with the PEN-CP Online Platform (POP) – Tentative demo team: Kevin Humphreys (IRL), Trevor Francis (GBR), Toni Männistö (CBRA), Juha Hintsa (CBRA)

>>Evening free>>

Thursday 21st April

9-9.15am Wrap-up of Wednesday: main points covered & insights shared - by Ron Roelofs (NLD)

9.15-11.10am On-going and new Annual study chapters - Three parallel breakout sessions (9.15-10.15am) and reporting back to plenary (10.15-11.10am)

- Green Customs -study – session facilitated and reported back in plenary by Boriana Rukanova (TUD)
- Past Customs EU RDI projects -study - session facilitated and reported back by Toni Männistö (CBRA)
- Smart borders -study - session facilitated and reported back in plenary by Eriks Geiba (LVA Customs)

11.10-11.30am Coffee break

11.30am-1pm Year-3 event main panel: "Customs Administrations: from Innovation Observers to Innovation Drivers" (3 x 20 min presentations & 30 min panel discussions)

- EU Research & Innovation for Capability Development on Customs Security - Giulio Mancini (DG HOME)
- EU Customs Control Equipment Instrument, CCEI - Wil van Heeswijk (DG TAXUD; joins remotely)
- Innovation Programs for Future Aviation Security Solutions – practical experiences and lessons learned & relevance to the Customs community - Chris Malbon (UK Department of Transport)
- Other experts invited to join the panel discussions: Jenia Peteva (DG REFORM), Andras Bartha (CELBET); Panel chair: Jonathan Migeotte (BEL)

1-2.15pm Lunch break

2.15-2.25pm Announcement of the two winners for the Global Customs Innovation Award: "Actions & ideas from customs that demonstrate innovative approaches to data quality (GCIA-2021)"; By Ron Roelofs (NLD) and Jonathan Migeotte (BEL)

2.25-2.45pm Questions and answers on "anything & everything with PEN-CP" – All participants

2.45-3pm Update on additional RDI financing instruments (excluding Horizon Europe) – opportunities for PEN-CP Customs partners – by Amrita Choudhary (ART) and Valerie Mellier (ART)

3-3.50pm PEN-CP Advisory Board Session I: How to hands-on moving with Open innovation calls & engaging relevant start-ups, scale-ups etc.; By Kathleen Diener (RWTH Aachen University; joins remotely) and Adele Yaroulina (European Start-up Network; on stage)

3.50-4.05pm Coffee break

4.05-4.30pm Horizon European network of National Contact Points (NCPs); engaging with start-ups/ scale-ups/ innovators case Ireland; & Enterprise Ireland activities overview; by Michael Murphy (National Delegate – Framework Program Security at Enterprise Ireland)

4.30-5.10pm Panel-2: Opportunities for Customs partners regarding the 2022 Horizon Europe calls

- Opening presentation by EC Services: Giulio Mancini (DG HOME) & Juuso Stenfors (REA)
- Examples on "currently open work programme topics of Customs interest": Trevor Francis and Darren Hart (GBR) and Mike Ellis (CBRA) ; Panel chair: Frank Janssens (CBRA)

>>6.45pm Common dinner and evening program>>

Friday 22nd April

9-9.15am Update on PEN-CP training materials, by Zsolt Dezsi (HUN Customs)

9.15-10.40am Three parallel breakout sessions (9.15-10.10am) and reporting back to plenary (10.10-10.40am) (coffee served during breakout sessions)

- Training materials - session facilitated and reported back in plenary by Zsolt Dezsi (HUN)
- Standardization roadmap - session facilitated and reported back in plenary by Kevin Humphreys (IRL)
- Expert reports - session facilitated and reported back in plenary by Ron Roelofs (NLD)

10.40-10.55am Wrap-up of Thursday: main points covered & insights shared – Mike Ellis (CBRA)

10.55-11.40am PEN-CP Advisory Board Session II - Possible schemes & best ways to start preparing for PEN-CP long-term sustainability – by Gillian Castle, Miroslaw Zielinski and Wieslaw Czyzowicz

11.40am-12pm Our guests are invited to briefly reflect the Year-3 event, and make their suggestions for PEN-CP, both for years 2022-24, as well as for the long-term sustainability

12-12.10pm Brief reflections by the 2018-19 Project Officer of PEN-CP – Paolo Salieri (retired from DG HOME in 2019)

12.10-12.50pm Pilot learner -announcement and brief demonstration on Customs data analyst e-learning course (on Canvas Learning Management System platform)

- Tentative demo team: Jonathan Migeotte (BEL), Frank Janssens (CBRA), Toni Männistö (CBRA), Juha Hintsa (CBRA)

12.50-1pm Closing remarks on the Year-3 Annual Event, and safe travels back home – by IRL & CBRA

PEN-CP online