



## **25 Years of the Slovenian Participation in IAEA ITDB Programme and Endeavours to Combat Illicit Trafficking of Nuclear and Radioactive Material**

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### **ABSTRACT**

Back in 1995, the International Atomic Energy Agency (IAEA) launched its efforts to systematically collect and analyse information from its Member States, addressing the so-called illicit trafficking of nuclear and radioactive material. Nuclear trafficking was clearly in the limelight due to several, fairly well published and echoed seizures of enriched uranium and plutonium in Europe at that time. Collected information in the Illicit Trafficking Database (ITDB) has become one of the valuable “flagships” of IAEA in the sphere of nuclear security. The name of the database was changed in 2013 to be: Incident and Trafficking Database.

Slovenia joined the ITDB in October 1995, thus marking last year the 25th anniversary of its participation in the database. The membership in this voluntary database has been growing steadily since its inception. The Slovenian Nuclear Safety Administration (SNSA) is the national point of contact – also taking care of national reporting into ITDB as well as distributing information from it – based on a need-to-know basis. Years ago, SNSA established an informal group on combatting illicit trafficking of nuclear and radioactive material – being a kind of a vehicle to deliver and exchange pieces of pertinent information.

So far, and fortunately, there has not been detected (or intercepted) any deliberate trafficking of nuclear (radioactive) material in Slovenia which was the case in Europe particularly in the “turbulent 90ies”. However, there is no room for complacency and past years have nevertheless brought up a number of reported cases – mostly the so-called “orphan sources”, spanning from U- and Th-substances to Kr-85, Cs-137 and other sources, including depleted uranium. The article will wrap up the current Slovenian criteria for reporting into ITDB. Moreover, it will touch upon the role of ITDB-related data as a source of information into the national (nuclear) threat assessment process. In addition, some extra thoughts will be presented on other databases and open-source information and how to amalgamate a broader picture, trends, patterns and conclusions. There is a will to nurture a pro-active approach, learn from the past cases – and the ITDB-related data as well as other open-source information are important remits for tailor-made national outreach activities.

Slovenian counterparts have been active and vigilant also in those issues which have not been related to trafficking and malicious intention but rather to inadvertent movement of e.g. radioactive sources in scrap metal (including contaminated items in semi- and final products) which may “travel” through more than just one continent – as some less or more known cases showed in the past years. The recently issued Decree on checking the radioactivity of consignments that could contain orphan sources (being fully mandatory since March 2020) has been enshrined as a fulcrum for the improvement of detection capabilities at the major Slovenian nodal points.

International outreach has been multi-pronged, e.g. through the IAEA/ICTP Nuclear Security School in Trieste, participation in different regional (European) engagements and topical meetings at the IAEA headquarters. There have been adjacent efforts, e.g. by US-counterparts to enhance detection and response in this sphere. Awareness raising was an underlying issue to spur up further pro-activeness. It is noteworthy to add that in 2018, Slovenia joined two international initiatives in the area of nuclear security; one being INFCIRC/918 (“Joint Statement on Countering Nuclear Smuggling”). To conclude, SNSA as the Slovenian nuclear regulator has pursued a number of activities to prevent, detect and response to illicit trafficking or curb other unauthorised activities.

## **1 INTRODUCTION**

Launched back in 1995, at that time favoured as the Illicit Trafficking Database (ITDB) has become one of the valuable flagships of IAEA in the sphere of nuclear security. Its name was changed in 2013 to Incident and Trafficking Database – to be more inclusive and purposeful.

Since then, quite a lot has happened globally and in the vicinity of Slovenia. Respectable 25<sup>th</sup> anniversary of the Slovenian participation in IAEA is the right moment to present ITDB from the bird’s perspective while wishing to add also a snapshot of other information and our efforts on countering nuclear smuggling.

As initially envisaged, ITDB contains information from IAEA member states on cases of illicit trafficking, but also on incidents involving any nuclear and other radioactive material not under regulatory control. The base is as good as the provided data on cases – therefore there is a wish to include also other states to adhere to ITDB and to animate all member states to report timely, soundly and in accordance with the Terms of Reference.

Not only the Slovenian technical staff but also high representatives from the Ministry of Foreign Affairs are aware of the importance of combating illicit trafficking and the (pivotal) role of IAEA in this regard. The last statement from the ministerial conference (ICONS2020) soundly underlined our vision and priorities, quoting “*Physical protection-related efforts and combatting illicit trafficking of nuclear and radioactive material are in the forefront of our activities.*” [1]

In 2018, Slovenia joined the international initiatives in the area of nuclear security; namely the “Joint Statement on Countering Nuclear Smuggling” (INFCIRC/918). This endeavour was one of products from the process of the Nuclear Security Summits. Jordan – as the sponsor (custodian) of this particular counter-smuggling initiative – informed the IAEA accordingly, aimed at further subscriptions and goals and commitments which would uphold progress in a number of pertinent subsets. They span from developing a national level detection architecture to enhancement of nuclear forensics capacities. Also strengthening of bilateral, multilateral and international information sharing is stated – and INTERPOL as well as IAEA ITDB are explicitly cited. [2]

## **2 SOME HEADWORDS ABOUT THE SLOVENIAN PARTICIPATION IN ITDB**

Slovenia (SNSA as the point of contact) joined ITDB in October 1995, only a couple of months after its inauguration. So far, as many as 28 different “events” have been reported into ITDB. The first reporting, back in 2001, addressed a melting of Co-60 source (with the activity around 80 MBq). Other “hand-picked” events, using different criteria through the time, were

selected and reported into ITDB (Cs-137, Kr-85, U- and Th-substances, C-14, Ra-226,...). One of the most important Slovenian cases, reported into ITDB in 2010, occurred years ago – but it is still salient. Back in 2005, two lightning arrestors (rods, with Co-60) were lost in eastern Slovenia – with no “discovery” since then. However, their combined activity could be (now) less than 30 MBq – which is several orders of magnitude lower than the threshold for “dangerous sources”. Some more information is available in the Radiation News (“Sevalne novice”). [3] The last Slovenian case was reported this summer and the event was characterised as “unauthorised storage”. The net amount of “historical” uranium was assessed to be 340 g. As always during such “discoveries”, the material was adequately shipped to the Central Storage Facility for Radioactive Waste (“CSRAO”).

A few discoveries of “historical” Ra-226, mostly in scrap, have been reported. No deliberate trafficking was observed, so to speak. Some more information is available on two other issues, including the latest one in Radiation News (“Sevalne novice”) when the 25<sup>th</sup> anniversary is touched upon. [4], [5]



Figure 1: U-substance in a receptacle, years-long storage at the premises of a museum in Škofja Loka (photo credit: ARAO)

By structured awareness raising(s), SNSA has tailored its aspirations to diligent use of radioactive sources (including transport and storage), and to strengthen nuclear security. Security culture, imbued into measures and approaches vis-à-vis radioactive sources, has spearheaded (we hope so) also fewer and fewer unregistered radioactive sources and future reporting(s) into ITDB.

Years ago, SNSA established an informal group on preventing illicit trafficking in nuclear and radioactive material – bringing together public/governmental entities and also non-governmental organisations. Regular meetings are held each autumn in an established set of the SNSA-led “tour-de-table”, where everybody presents their work, achievements and challenges. The entities are also briefed about the international situation regarding IAEA approaches, ITDB and some other available information.

### **3 ITDB – HOW TO UNVEIL A BIT ITS “FLAVOUR” WHILE USING IT AS A WEATHER VANE?**

ITDB team issues periodic data (public leaflets) through “ITDB Factsheet”. [6] Slightly obsolete but nevertheless quite valuable guide from the IAEA’s side is also Combating Illicit Trafficking in Nuclear and other Radioactive Material (Nuclear Security Series no. 6). [7]

ITDB has experienced a tremendous number of reporting cases, approaching gradually to 3900 at the time of writing. If the first few years were marked by seizures and discoveries of nuclear (fissile) material in Europe, the trend in the next years was switched to more and more reporting cases of radioactive material or radioactively contaminated items. By extensive installation and use of various detection systems and devices, many cases have been discovered

which have shown e.g. global trade in scrap (containing sometimes radioactive sources, from Co-60 and Am-241 to Ra-226 and others). One should not overlook a number of thefts of different radioactive sources or devices (to be reported as many as 55 in the period between July 2019 and June 2020). [8]

ITDB has evolved considerably since its inception; obsolete information exchange via faxes was smartly replaced by a secure e-platform, known as NUSEC (nuclear security). Also the number of countries that have more or less enthusiastically joined ITDB has steadily grown to 142 (as of 27 August 2021). Access to ITDB folder within NUSEC is limited to a handful of people per country. In Slovenia, besides SNSA's staff, only some individuals from the Slovenian Radiation Protection Administration (SRPA), Police and Financial Administration (in the following text: "Customs") could read restricted, ITDB-related data. Annual meetings are organised by SNSA with these and some other stakeholders (e.g. Market Inspectorate, CAA, etc.) to exchange pertinent information.

SNSA's organisational procedure "ON 2.9.1" (rev. 7) enshrines a set of internal criteria for reporting into ITDB, to be summed up as follows:

- Offences that included radioactive sources or nuclear material (e.g. trafficking, theft or sabotage, terrorism-related use of such substances);
- Discoveries of nuclear material;
- Disposal of radioactive sources or waste without necessary permits;
- Discoveries of radioactive sources (categories 1 to 4);
- Losses and missing of radioactive sources (in particular categories 1 to 4);
- Unauthorised trade (import, export, shipment into or out of the country, transport or transit) of high consequence radioactive sources (categories 1 to 2);
- Inadvertent movement in particular of radioactive sources in shipments of scrap – with higher dose rates (e.g. more than 5  $\mu\text{Sv/h}$  on the surface of the shipping goods or vehicle);
- Other relevant events – on a case-by-case basis.

ITDB information could be usefully elucidated by the co-operating states, e.g. for situational awareness and awareness raising(s), for threat assessment process and case studies to be digested during tailor-made trainings, seminars and other learnings. Slovenia is not an exception to these, and ITDB-related data are looked on annually during domestic threat assessment process, managed from top-down by Police.

The IAEA definition of trafficking (for ITDB communication only) is as follows: "*trafficking means any intentional unauthorised movement or trade of nuclear or other radioactive material, in particular, those with possible or proven criminal intent.*" Broadly speaking about reporting "events" in ITDB, three clusters or groups have been used in the last couple of years:

- Confirmed or likely act of trafficking/malicious use or scam/fraud (including attempts thereof);
- Undetermined act of trafficking/malicious use (including attempts thereof);
- Confirmed or likely absence of an act of trafficking/malicious use (including attempts thereof).

ITDB is explicitly mentioned in two key documents from the sphere of nuclear security: Nuclear Security Recommendations on Radioactive Material and Associated Facilities (IAEA Nuclear Security Series no. 14; 2011) and Nuclear Security Recommendations on Nuclear and

other Radioactive Material out of Regulatory Control (IAEA Nuclear Security Series no. 15; 2011). Both of them are two of key benchmark documents during another prominent “product” from IAEA, namely its IPPAS missions (International Physical Protection Advisory Service). In addition, summarised data from ITDB are regularly included in the annual report on nuclear security, presented by the Director General before each General Conference.

IAEA has decided to wrap up its guidelines and publish a dedicated document on the Guidelines for Participating States and Points of Contact of the ITDB. SNSA’s staff were also involved in the process in 2019 and 2020. (The publication has not been issued yet at the time of writing of this article.)

ITDB-derived information has been usefully disseminated by IAEA also during important (international) events. Various bites of information could be found in open sources – one of the best being “lessons learnt” – nuclear security measures at the 2007 Pan American Games. Amongst other, a dedicated seminar was conducted, aimed at senior officials and covered ITDB and any (regional) trends that had been identified in the analyses of the data. Such information provided an important input in the development of the threat analysis. In order for the authorities to be kept up to date, IAEA provided periodic reports on more recent incidents of illicit trafficking and reports of lost or stolen radioactive sources. [9] Nuclear security measures are namely important in the whole spectrum of security. This has been shown multiple times, also during the last Winter Olympic Games in Pyeong Chang, the Republic of Korea in 2018. [10]

#### **4 A FEW LESSONS LEARNT FROM OPEN-SOURCE INFORMATION AND EVENTS ABROAD**

One of the best “tools” to be deployed is to explore how the problem of nuclear smuggling has affected the neighbourhood and those countries, lying immediately thereafter. One of the best articles (and stepping stones) is undoubtedly the one from 2014, highlighting the Black Sea region. A number of countries have been underscored where different kinds of nuclear (fissile) material have been discovered as well as many different isotopes from the past, known as “orphan sources” or “historical sources”. More information could be found at [11].

The renown Swedish agency FOI (Totalförsvarets forskningsinstitut) has recently published its thematic report, titled “CBRN Threats and Incidents Involving Non-state Actors – 2020 Annual Report”. In the realm of radiological and nuclear threats (i.e. events), it summarises a number of salient events worldwide – spanning from multiple thefts of radioactive sources (medical sources, sources – used in industrial radiography) to seizures of uranium substances or an attempt to purchase Po-210 (the latest in Malta – Slovenia-nearest location). [12]

Recently issued report TESAT (by Europol; Terrorism Situation and Trend Report) addressed *inter alia* also CBRN substances. It states that no terrorist incidents involving radiological or nuclear material were reported in 2020. Very briefly, the (individuals’) intention to purchase CBRN materials through the dark web was touched upon together with more elaborated notion of some possibilities that some actors might intend to use radioactive and nuclear material to conduct attacks. Adequate security measures (including access control) should be in place since there have been reports of thefts of different radiation sources. [13]

In the last couple of years, a smaller number of cases have drawn particular attention, “felt” through different fora. This first is related to multiple seizures of radionuclide-doped playing cards and other paraphernalia; the second goes to a string of detection of fairly high active sealed sources with Co-60 in two European countries. SNSA (hence Slovenia) neither has folded its arms but – having limited resources – did some internal research to find out any

implications and interesting “threads” or “trends”: Some takeaways could be unveiled for both instances:

- Radionuclide-doped playing cards and other paraphernalia:
  - Several seizures or discoveries of playing cards, contaminated with I-125, have occurred not only in the European Union (Germany, Poland, Romania) but also elsewhere (USA, Russia, Viet Nam, Mongolia, etc.); [14], [15], [16], [17], [18], [19]
  - Some cases have involved also other isotopes (e.g. Sr-90), smuggled in different items (wrappings, shielding); this isotope was used to mark dice; [18]
  - Such radioactive items have been used by (illegal) gamblers in order to cheat in games (in illegal gambling establishments);
  - In certain detected smuggling cases, relatively high contact doses were measured, considerably exceeding 100  $\mu\text{Sv/h}$ ;
  - It should be underpinned that this “radioactive tagging” and subsequent illicit trafficking is not a new *modus operandi*; based upon open sources, such recurring offences have happened at least from the early 2000ies onwards;
  - The pro-active approach of many countries has been oriented to effective (i.e. purpose-built, targeted and optimised) “detection architecture” in particular at their major international airports; co-operation with intelligence is also important as well as international co-operation in this vein.
- Discoveries of Co-60 in shipments in Europe: [20], [21], [22]
  - On four separate occasions in late 2018 and early 2019 (three occasions in the Netherlands and once in Germany), non-shielded Co-60 sources were found in scrap metal originating from Africa, purchased on the international scrap metal market;
  - All four events were reported to the IAEA;
  - On the outer surface of the containers, radiation dose rates varying between several mSv/h to several tens of mSv/h were measured (activities were in the range of several tens of GBq per source);
  - Despite very significant dose rates, there were fortunately no indication that any overexposure to the sources occurred during transport and handling of the sources;
  - It is likely that the country that shipped the scrap metal containing the discovered radioactive sources is not the country of its original provenance;
  - It remains possible that more radioactive sources are out of regulatory control;
  - No similar detection of Co-60 occurred in Europe since then.

Yet in 2019, Slovenia (SNSA) received though IAEA USIE a Dutch (circular) request for information, having two-pronged questions, namely:

- on recent events involving possible radioactive material, especially Co-60, in harbours, scrap metal yards or steelworks;
- on indications that Co-60 related gauges or devices are (not) under regulatory control.

The SNSA’s answer gave a straightforward overview (abbreviated): “*Slovenia has a thorough system of control of imported scrap metal as well as other goods. Our Port of Koper (equipped with different radiation portal monitors and other detectors) and the Financial Administration (“Customs”) – daily using this equipment – has not informed us (SNSA) of any elevated radiation in the port, due to Co-60 or other high activity sources, coming there or causing significant radiation field(s). Similar goes also to our scrap collectors and scrap recyclers who have found in the last couple of years – sporadically – only weaker sources, e.g.*

*Ra-226, Am-241 or NORM. We have no information in the registries and other databases on any dangerous Co-60 source (Cat. 1 to 3) out of regulatory control.”*

These Co-60 cases have somehow highlighted global trade, globalisation and drawn a parallel to more-than-a-decade aged situation in Europe when Co-60 was detected in lift buttons in a number of countries, yet those activities (and contact dose rates) were substantially lower. At that time, metal base for lift buttons came from Indian suppliers. Then, no radioactive buttons were discovered in Slovenia after a survey. [23]

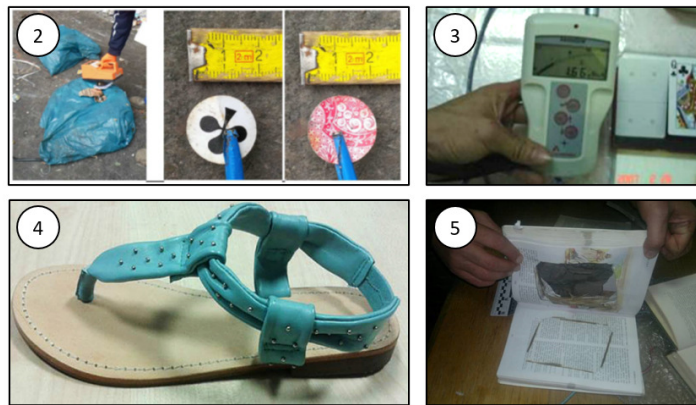


Figure 2: Discovery of playing cards' residuals, contaminated with I-125 in Germany [24]

Figure 3: Vietnamese efforts to curb and seize trafficked cards with radioactivity [25]

Figure 4: A sandal – detected due to excessive radiation (Co-60; Poland) [16]

Figure 5: A sample of rock in a niche (in the Bible), found in a parcel (Ukraine) [26]

Such international cases are extremely valuable for getting acquainted with (regional) seizures and various inventive attempts by smugglers. Some years ago, a duo of Caucasian opportunistic, poverty-stricken individuals was caught e.g. when trying to smuggle a Cs-137 source in a package, full of hazelnuts. [27] On the other hand, the persons being intercepted, are not aware of contamination of final products (e.g. with Co-60) as an interesting Polish case has shown (picture above). [16] Other cases from various countries (Lithuania, Belgium, the Netherlands, Moldova, Italy etc.) and circumstantial pieces of information could be found in literature. [28], [29], [30], [31], [32] Some “events” may reveal after thorough research a wilful action to illegally dispose of radioactive material or harm a competitor – as for example an international case from the past with contaminated beer barrels has evidenced. [33] All such cases could be an excellent “eye opener” during our outreach efforts and when raising awareness is on the spot.

No “real” nuclear smuggling has been detected in Slovenia so far. However – as a very recent case in the neighbouring Austria has shown – international smuggling networks are neither static nor hoovering far away. Very briefly: Austrian law enforcement together with the Moldovan counterparts coordinated and supported by Europol have jointly investigated and arrested an organised crime group suspected of smuggling nuclear materials (they attempted to sell nuclear container which allegedly contained radiological material and three individuals were arrested in Vienna). [34] The maxim “it cannot happen here” was shaken to the ground. Similar outstanding events may flip such a narrative on its head and expose a need to re-evaluate national posture, threats, co-operation with intelligence sphere and detection capabilities. It is vitally important to strike a balance between sharing information and confidentiality issues. One of the burning questions may be how various stakeholders – in many times with limited resources and a myriad of other priorities – can make sure they are alert to such warnings,

remaining vigilant and continuously improve their processes. As one of the best known experts concluded more than a decade ago: “*Reality shows that you have to be prepared for everything to happen.*” [35]

## 5 A QUICK LOOK OVER THE HORIZON

SNSA will continue to work as a co-ordinator of the established informal group on preventing illicit trafficking of nuclear and radioactive material. The annual meetings and conclusions with some extra tasks are valuable but there has been a lack of some feedback from the partners. Hence, high standards and nurturing synergies should be seen as essential enablers of the future work.

The Decree on checking the radioactivity of consignments that could contain orphan sources (being fully mandatory since March 2020) has extended a “pool” of the Slovenian measurers of radioactivity (i.e. the major Slovenian nodal points have been revised and broadened). Its prime objective is of course radiation safety but one should not overlook its aspiration for tackling illicit trafficking (movement) of radioactive material. No sharp increase in finding something “radioactive” has occurred since then but for any holistic views, an extra year or two are needed to receive some additional feedback from the “pool” and new duty holders.

Back in 2019, a joint “Customs” and SNSA study visit or a kind of audit at the main international airport in Slovenia was deemed to be a orienteer for future step-wise approaches. Its dual objective was to see the modalities of the airport as the incoming hub of legal shipments of radioactive material as well as presenting a string of lessons learnt to “Customs” staff on global discoveries of radioactive material and some in-a-nutshell stepping-stones about legal consignments (transports). Despite a fairly small percentage of air shipments of radioactive material into Slovenia, more attention should be devoted in the future. SNSA will keep abreast of trends and lessons learnt regarding detection, interception and seizure of various radioactive items at such hubs.

A considerable amount of international, airports-related discoveries has shown an interesting palette of (seized) radioactive material, from various luminous devices with Ra-226 to ore samples, afore-mentioned radioactive gambling items, objects “alloyed” with Co-60 in metal parts, etc. In certain cases, for example, apparently “usual” shipments of “excepted packages” have been discovered to exceed clearly known and prescribed dose rates. [36]

SNSA will be further engaged with the Slovenian Police (and others, as appropriate) to yearly review and update the annual threat assessment for transports of potentially highly dangerous goods – radioactive material and nuclear material as well as nuclear facilities. For such a recurring task, international benchmarking, “open source” information and ITDB-related analytical products are really helpful and valuable. Dedicating specific attention to developing an informed threat picture of various actors and their capabilities vis-à-vis further scenarios is necessary to enable any sustainability and resilience.

At first blush there seems to be little need to shove “nuclear trafficking” in the core work of the front-line officers (FLOs). Nevertheless, those who work at major national nodal points or have specialised also in dangerous goods (trafficking, checking, proper temporary storage conditions, etc) should have adequate knowledge and precise procedures for dealing with those issues, including how to utilise reach-back expertise. Globally, FLOs’ training could vary significantly [37] – so sharing good practices is vital and collaboration more than necessary.

Based upon previous discoveries of radioactive sources (elevated radiation), the following trends and prognoses may be revealed:



- High activity sealed sources (or dangerous sources) are extensively supervised and there is very little possibility for them to fall outside regulatory control;
- Smaller quantities of different U- and Th-substances have been found in the past; it is possible that gramme-quantities of such “historical sources” have been unaccounted for; however, the number of such cases will be lower and lower, with a gentle trend;
- Radioactive sources in scrap (including NORM and sources below exemption levels) will appear in the future – and a substantial part of them will be in transit through Slovenia (and later denied by the consignee’s country/measurers). Various radioactive sources (e.g. once used in lightning arrestors/rods or ionising smoke detectors) could be located in scrap but radioactive sources with contact dose rates above 50  $\mu\text{Sv/h}$  are less likely.
- While there has not been any theft (or missing or loss) of radioactive material in Slovenia during transport, such events occur regularly in the world. Awareness, vigilance and security-related measures needed should always be in place. Globally, thefts and similar events may span from “stolen at gunpoint” to devices with radioactive sources, (opportunistically) stolen from/with vehicles during night-time and near private residences or hotels.

No single country can successfully fight the threat of RN trafficking alone, therefore it is of utmost importance to harness and protege bilateral, regional and international co-operation and striving at optimisation of manpower and other resources – which is particularly important for smaller countries. [38]

Last but not least, the regulator(s) shall have in mind also coherent situation to maintain a “controllable” number of radioactive sources at the state’s territory, fair justification of use, replacing – where feasible – some radioactive practices with the use of non-radioactive alternatives (or X-ray devices). Occasional campaigns, collection(s) of disused sources, including vulnerable ones, should be promoted and upturned by the regulators and other public agencies.

On the international parquet, SNSA’s staff will continue to co-operate with IAEA ITDB team in different regional events (one of the last and very useful was in Switzerland in October 2017 – ITDB Information Exchange meeting) or utilising other platforms, e.g. US-led efforts through their NSDD – Nuclear Smuggling Detection and Deterrence. In September 2021, SNSA is right now planning to organise a short virtual analysis together with IAEA ITDB team for a handful of the Slovenian stakeholders. At the end of 2021, a triennial meeting of all national points of contact for ITDB will be held (hopefully in-person in Vienna). Traditional co-operation with IAEA and the Italian counterparts is annually held in the framework of the Nuclear Security School in Trieste (and its site visit to Koper, Slovenia) – where “Customs” and SNSA presents our national detection architecture, approaches to nuclear security and practical use of detection devices.



Figure 7: Nuclear Security School has been an avenue of outreach and co-operation [39]

## 6 CONCLUSIONS

SNSA as the Slovenian nuclear regulator has pursued a number of activities to prevent, detect and response to illicit trafficking or curb other unauthorised activities. The same goes with the other Slovenian stakeholders – in particular SRPA, “Customs” and Police – that are well aware of threats and risks. Successfully, SNSA has raised awareness in this regard through a number of the established channels or means, e.g. annual meetings of stakeholders, tailor-made *ad hoc* analyses and overviews, through annual reports and its leaflet Radiation News (“Sevalne novice”, in Slovenian), also through occasional seminars (or briefings) for the Police and “Customs” officers, etc. Awareness raisings on RN-related issues and a sustainable nuclear security should be a never-ending story, pursued by the tireless regulators in this domain.

IAEA with its renown base ITDB has been our focal point for more than two decades. A number of lessons learnt have been picked up and garnered from those cases in ITDB which have been relevant also for the Slovenian circumstances. In addition, various open-source pieces of information have complemented the whole “picture”. Intuitively, those cases which occur nearby Slovenia (or in Europe) drag more attention, including analytics; however, some other cases may be important too due to global trade in commodities – which might be contaminated for different reasons or incorporate orphan sources or even nuclear (fissile) material or traces.

By joining the initiative “Joint Statement on Countering Nuclear Smuggling” (INFCIRC/918), Slovenian stakeholders have chartered further and (more structured) approach. These may include some additional co-operation internationally because a plentiful of other European countries have been staunch supporters of the initiative’s endeavours. The participants (and others) have learned a lot about strengthening counter-smuggling efforts over the years, and there is arguably more to be done to share experience and good practices. The goal should be to bring everyone up to the upper level while mind the gaps in national detection architecture and response.

SNSA would really like to underpin the importance of the informal network of national stakeholders. Our joint, almost two decades long endeavours have aimed at harnessing synergies, where possible, and striving for continuous improvements and challenging the status quo – where possible. The pandemics (COVID-19) has brought up more interactions in the virtual environment and sometimes even some extra time for some additional queries, analyses and focuses.

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