

TI Update on Export Controls

You can see all the export control TI projects here:

- ISTC - <https://www.istc.int/export-control>
- STCU - <http://www.stcu.int/tiexpcontrol/index.php>

These Targeted Initiatives on CBRN export control for Central Asia and the GUAM countries are funded by the EU since their starting point in 2017 (ISTC and 2018 (STCU).

As this article is submitted, Russia continues its unjustified invasion of Ukraine. In addition to the destruction of property and human suffering this has caused, the war also caused at least a temporary disruption of STCU's work.

Building sustainability of export control education under adverse conditions

The development and implementation of a full Master's course on CBRN-relevant dual-use technology export controls continued despite the inability to travel and have in-person teaching as a consequence of the ongoing COVID-19 pandemic throughout 2021 and early 2022, as well as Russia's invasion of Ukraine in February 2022. Two developments laid the foundation for the continuation of activities.

First, the pandemic led to the adoption of virtual educational methodologies, which were applied during student lecturing and professor training. The adaptations took place both in the way course materials were being presented to maintain focus of the audience, the shortening of individual lectures, and the spread of a lecture series over several days, usually towards the end of the working day in the host country. The individual virtual lectures also became more intensive. Two emerging factors enabled this evolution. On the one hand, local professors started introducing the topic of the lecture ahead of the virtual session and then followed up or expanded the lecture the next day. On the other hand, the requests for professor training became more specific in the sense that they sought to supplement the knowledge and expertise the professors already had.

Second, the virtual teaching enabled local professors to invite students from other faculties, universities and research institutes to join in the lecture series. This broadened the impact of the lectures and also led to increased focus on contributions by different key stakeholder communities (e.g. academics and researchers) to the prevention of inadvertent technology transfers that might contribute to the illicit development of CBRN weapons. This increased visibility of the Master's course and attracted the interest of more students.

Out of the latter development another new element also emerged, namely the gradual engagement of other institutes and stakeholders in the educational objectives of the Targeted Initiative. The virtual lectures not only started to have other

academics and researchers attending, but some sessions were also specifically organized to include decision-makers on faculty or university levels of different institutes and representatives from government agencies, including trade, export controls and education.

Another key facet of the educational work package in the Targeted Initiative is to transfer ownership of the Master's course to local stakeholders and build sustainability. While concrete work towards this double goal already began shortly after the global pandemic had shut down in-person interactions, it was not until late 2021 that the efforts started yielding concrete outcomes. The two developments described above, namely adaptation of educational methodologies and the growing involvement of stakeholder communities and decision makers in the educational process, were key.

The Taras Shevchenko National University (TSNU) in Kyiv, with the endorsement of the Science and technology Center in Ukraine (STCU), launched an extra-mural version of the master's course allowing students from other Ukrainian universities to join students enrolled at TSNU in taking the lectures. This initiative was accompanied by efforts to interest other Ukrainian universities in adopting the master's course. In 2021 a couple of one-day virtual seminars drew up to 100 participants, comprising students, academics and scientists, and key staff from faculties and university rectorates. The combination of both initiatives started off collaboration among different institutes.

The resulting academic network brought another benefit. In March 2022, during the Russian siege of Kyiv, use of the contacts helped to evacuate TSNU students from the capital and have them relocated to parts of Ukraine less affected by the war.

The insights gained from the network creation in Ukraine also helped accompaniment of similar initiatives in Moldova and, in the context of Targeted Initiative component managed by the International Science and Technology Centre (ISTC) in Nur-Sultan, in Kazakhstan and the Kyrgyz Republic. In the latter case, network cooperation is expanding not only within but also between both countries.

In summary, the building of academic networks and the gradual involvement of key stakeholder communities in academic and research institutes and government agencies has significantly contributed to building local ownership of the master's course under the Targeted Initiative. The developments have also supported the goal of long-term sustainability of the educational programme.

The most tangible reward thus far has been the certification of the course at TSNU 'Economic security of Entrepreneurship' by the National Agency for Higher Education Quality Assurance (NAQA) in February 2022. In its comments, NAQA noted that the Master's programme 'has unique disciplines' and 'was created with European colleagues'. Following interruption because of the Russian invasion, the course is now scheduled to resume in the early autumn.

Shining a Light on Completed Work

Given the significant volume of work that has been produced by the TIs, the project team is now looking for ways to better publicize the accomplishments of the various national teams and make the products of their work more widely available, such as training and education materials, the new Commodity Identification App, and the Internal Compliance Program guidelines. One option that is being explored is to include work in the Catalogue of Civil Society Activities Strengthening Nuclear Security, sponsored by the Stimson Center in the U.S. The project is building a pilot catalogue of civil society capacity building, assistance, and/or research programs.

Another opportunity raised by the Stimson Center's work UNSCR 1540 implementation is to bring to the attention of national teams that their respective governments could expand their 1540 reports by including relevant information on TI projects. This effort is ongoing and hopefully future reports will reflect a number of project deliverables.

ISTC

The **Nuclear Technology Safety Center (NTSC) in Kazakhstan** completed updating the **Internal Compliance Program (ICP) Guidelines** for the Nuclear Industry in Kazakhstan and completed work on Model ICP Guidelines that can be adapted to any sector. The final version provides a general framework for structuring an ICP, with special chapters devoted to nuclear, chemical, biological, and radiological sectors. The guidelines are available to the public and are available here:

<https://www.istc.int/storage/2022/04/25/395196e77e10f33d0a5711dffa64f5298bb0b340.pdf>. Anyone can download the guidelines and adapt them for their specific situation.

A project proposed by the **Armenian Nonproliferation Center (NPC)** to develop a **commodity classification App** for mobile phones was completed and the first results are encouraging. The App is available for Android and Apple mobile phones and the NPC team is collecting comments and recommendations to improve the app. The initial app is designed to function in Armenian, English, and Russian. In addition to the search function, the app has an option to add a button to the app that allows the user to transmit the information on the item being reviewed to the national classification authority (based on prior agreement with the government office) so it can be reviewed immediately. This feature could be very important in countries where customs officers may not be familiar with the technical details of items they see at the border. The STCU project team is working with other TI project teams in the participating countries to measure whether there is interest in adapting it to their countries and one country has already requested a version for its use. A key issue to be explored is what versions of the export control lists are being used by different countries and whether that will require multiple versions of the app. Most countries align with the EU combined list but may not have passed the required legislation to adopt the most recent version. These and other questions will be explored during the coming months, along with how to adapt the app to a desktop version for use in locations that do not have strong internet connections.

The app can be downloaded here:

Apple devices - <https://apps.apple.com/us/app/pik/id1595428106>

Android devices -

<https://play.google.com/store/apps/details?id=com.piktdn.android&hl=ru&gl=US>

How to Use the PIK commodity identification app

Settings/language

- Click on the Settings wheel in the bottom right corner and select language
- Depending on the version and location, the language choices may be different. English should be an option for all versions.

Search/Identify

From the home page, there are two options:

- Manual – in the SEARCH field, type the name of the item or its identifying code
 - It is possible that there are multiple items listed under the same main classification number. Find the item that best matches the item being identified and click on that box
 - The detailed description will appear if the item is on an export control list
- Scan – click the SCAN button, which opens the camera
 - Take a photo of the name or identifying code
 - Confirm or cancel with the buttons at the bottom of the screen
 - The cropping tool allows you to select the information you want to identify
 - A window will open with a list of words from the selected text
 - Select the documents you want to read

Optional Feature

Depending on where PIK is being used, the national customs classification authority may provide a link to PIK that allows the user to submit an item or identifying code for classification. This feature is particularly useful if there is doubt about the status of the item or in other cases where clarification is needed (e.g. if there is a new sanctions regime that has to be enforced).

The **Center on Export Controls in the Kyrgyz Republic** made major progress in its project to develop training courses for commodity identification and classification. The idea was developed initially for industry but has now been linked to work with universities and the course will now be presented in the Kyrgyz National University (KNU). To the extent possible, materials and trainers from other TI participating countries are being involved, including the NTSC in Kazakhstan, which has course

materials and may have an additional trainer to add. The goal is to conduct this kind of training throughout the region based on regional experts and materials they have developed.

STCU

There was extensive work on the Moldovan-led **Regional Export Control Handbook**. The STCU staff was instrumental in guiding all participants through the final stages of negotiating the handbook outline, organizing all the required host country concurrences, and ensuring that the proposal complied with all STCU requirements. Georgia, Ukraine, and Moldova have completed their sections. Azerbaijan's work was delayed due to internal procedures, but work on its section of the handbook is now proceeding well. To further EU-US cooperation, the handbook outline was shared with relevant U.S. State Department Export Control/Border Security (EXBS) officials in the GUAM countries and in Washington to inform them of progress and to ask if they have any cross-border exercises planned for the GUAM countries that might illustrate why it is so important to understand cross-border structures and procedures. There was a positive response and when the war in Ukraine allows, the plan is to organize an in-person meeting of project participants. Meanwhile, WhatsApp and Telegram groups were created for the project participants to facilitate regular information exchanges.

The Internal Compliance Programme (ICP) model by the Academy of Sciences of Ukraine project continues to make progress and now has received concurrence from the Ukrainian Academy of Science and is finalized. The Institute for Nuclear Research (INR) of the National Academy of Sciences of Ukraine leads the project. The INR team has compiled and analysed various instructions, decrees, international scientific agreements, etc. in order to find any export control related requirements or at least to identify the types of documents that should have such requirements. The team has also gathered information about violations of export control by scientists, and about various ICP-related initiatives. Information is being compiled in Ukrainian and then will be translated into English. In the context of the project, one of the Ukrainian team leaders gave a talk on the project to an online seminar dedicated to ICP for Ukrainian Enterprises organized by the State Service for Export Control of Ukraine.

Responsible Science and export control

In June 2021, the TI convened an online seminar programme on issues related to issues around "Responsible Science" that took place over four sessions. The aim of the series was to promote responsible science, to encourage thinking in relation to the implications of scientific and technological developments, and to enable scientists to communicate their work to people outside of their field.

Across the world, the training of scientists includes aspects of research integrity - such as the need for honesty, the perils of plagiarism and correct use of data. There is a growing recognition that as part of responsible science, scientists need a better

understanding of potential negative impacts of scientific activities and encouragement to identify ways to reduce these.

The seminar series was hosted by the STCU and was aimed at scientists at the beginning of their careers. The audience included postgraduate students and early-career researchers from Azerbaijan, Georgia and Moldova but generated interest amongst more senior researchers as well. In total, around 75 participants from the target countries took part in the series.

A particular focus of the series was that advances in science and technology can provide possibilities for harm as well as providing benefits. But there is no objective measure about what is potentially beneficial and what is potentially harmful. Moreover, updates to regulations often lag far behind developments in scientific and technological understandings. Thus, the role of scientists in understanding the implications of their research and other activities is vital.

The participants heard from a variety of experts on topics ranging from personal choices in research activities to development of codes of conduct. The fourth session provided an opportunity for participants to present their own thoughts on the issues raised in the preceding sessions.

The convenor of the series, Dr Richard Guthrie, said "The move to an online format to discuss a subject like responsible science has been very effective. While there are some teaching activities that are harder to do in a virtual setting, this seminar series has shown there is much that can be done to generate interest amongst scientists about how they conduct themselves in their careers and how they can communicate their research activities and issues related to the impact of their research."

The online seminars were developed under the Targeted Initiative on Export Controls of Dual-Use Materials and Technologies funded by the European Union and implemented by the STCU for the GUAM Countries (Georgia, Ukraine, Azerbaijan and Moldova). The Targeted Initiative implements the EU Global Strategy and the EU Strategy against the Proliferation of Weapons of Mass Destruction).

Further details of the seminar series can be found at <http://www.stcu.int/expcontrol2018/07/index.php>