Reducing Proliferation Risk Through Export Control Outreach: Assistance Providers' Use of Maturity Model-Based Approaches

T O D D   P E R R Y [1]

Abstract

Export control capacity-building programs have evolved to take into account proliferation risks as well as a partner's ability to effectively absorb assistance when deciding how to allocate limited outreach resources. To this end, the United States Department of Energy's International Nonproliferation Export Control Program (INECP) and the European Commission's Partner-to-Partner (P2P) export control outreach program have adopted a maturity model-based approach to system development similar to the one in the World Customs Organization's (WCO's) 2015 Strategic Trade Control Enforcement (STCE) Guide. This approach takes into account national institutions' ability to make effective use of export control training and other resources and gives assistance providers the means to tailor and cadence delivery of these resources accordingly. Since there is no single standard for export control system development, this article begins by reviewing which export control elements, like licensing and enforcement, might be deemed essential to system functionality in the face of known proliferation procurement methods. The article then describes and supplements the WCO STCE maturity model to demonstrate which levels of enforcement and licensing support are appropriate at each level of maturity, while demonstrating how interagency information-sharing must be "baked in" to the maturation process at all stages of system development. The article concludes with a list of lessons learned from the U.S. and EU programs' adoption of this maturity model approach.

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Keywords

Export controls, capacity-building, International Nonproliferation Export Control Program (INECP), United States Department of Energy, European Commission, EUP2P, World Customs Organization, Strategic Trade Control Enforcement

Introduction

Over the past two decades, export control-oriented governmental organizations from leading supplier states of goods and technology with potential Weapons of Mass Destruction (WMD) application have sponsored a wide range of ad hoc and formalized export control outreach activities to other supplier and transshipment countries seeking to establish or strengthen their national systems of control. This outreach has generally conformed to norms promoted by the multilateral supplier regimes like the Nuclear Suppliers Group as well as by United Nations Security Council resolution (UNSCR) 1540.[2] The results have been favorable overall, albeit with substantial variation with regards to long-term impact. On the positive side, new systems have emerged and extant systems have become stronger and more effective than before through assistance and peer-to-peer exchanges.[3] On the negative side, some countries have received substantial amounts of assistance and have yet failed to establish systems of control. Still others have adopted legal-regulatory export control norms in line with supplier regime recommendations and UNSCR 1540 requirements but have failed to implement and enforce controls that match them. Of potentially graver concern, assistance recipients and major suppliers alike continue to face challenges in the financing of national export control implementation. This threatens to erode the important implementation gains made to date, even as proliferation threats grow within the context of rapid geopolitical and technological change.[4]

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2   With respect to the materials, equipment, and technology needed to manufacture WMD, United Nations Security Council resolution 1540 (2004) Paragraph 3(c) calls on countries to "Develop and maintain appropriate effective border control and law enforcement efforts to detect, deter, prevent and combat, including through international cooperation when necessary, illicit trafficking and brokering in such items in accordance with their national legal authorities and legislation and consistent with international law." United Nations Security Council Resolution 1540, S/RES/1540, New York, April 2004. Supplier regime guidelines are generally considered to be the most proximate expression of UNSCR 1540 export control-related requirements.

3   In their report, the authors of the "Peddling Peril" index identify a bimodal distribution of export control and especially export enforcement capabilities worldwide, with progress most evident in two categories: countries in the process of constructing systems that demonstrate limited but important capacities and more advanced established systems that demonstrate an ability to update measures to address evolving proliferation threats. See Figure 7.1, p. 67, in David Albright, Sarah Burkhard, Allison Lach, and Andrea Stricker, "Peddling Peril Index (PPI) for 2017," Institute for Science and International Security, January 31, 2018, <http://isis-online.org/isis-reports/detail/peddling-peril-index-ppi-for-2017>.

4   On technological change and the challenges it poses for export controls, see Matthew Bunn and William C. Potter, "Introduction: The Problem of Black-Market Nuclear Technology Networks," in Matther Bunn, Martin B. Malin, William C. Potter, and Leonard Spector, eds., *Preventing Black-Market Trade in Nuclear Technology* (Cambridge: Cambridge University Press, 2018), pp. 1–22. See also European Commission, "Report on EU Export Control Policy," December 2018, <http://ec.europa.eu/trade/import-and-export-rules/export-from-eu/dual-use-controls/>. Sections 1.1.1-2 discuss the risk that export controls might not keep pace with threats and technological developments.

In light of these circumstances, a key question arises for providers of export control assistance and peer-to-peer exchanges: When faced with a wide range of export control system performance challenges within an equally wide range of partner countries, how can assistance providers best allocate limited resources to maximize impact and thus optimally reduce proliferation risks? For the purpose of this article, this question takes as a given that governmentally sponsored assistance programs are directed by their governments' lead diplomatic and export control agencies to engage specific partners based upon a wide range of economic and security considerations. The governmental organizations supporting or directly responsible for providing assistance then typically assess the proliferation risk associated with each selected partner in relation to their ability to produce or transship controlled goods.[5] These assessments can help assistance providers prioritize and tailor assistance but have little bearing on whether or not a given partner possesses the institutional wherewithal to absorb assistance and to sustain effective export control practices.

To address the central dilemma of how to best allocate outreach resources to optimize risk reduction, assistance providers must answer two subsidiary questions. First, what are the baseline export control functional requirements for any system to reduce proliferation risk? Second, which institutional capacities within assistance recipient countries are most likely to ensure the effective absorption and implementation of knowledge provided by assistance programs in order to satisfy these functional requirements?

In order to answer the first question, this article briefly describes the challenges that emerging and advanced systems of control alike have faced since the early 2000s in broadening export control norms to include not only the regulation and licensing of controlled goods and know-how, but also the detection of exports of WMD-related goods that have fallen outside of regulatory control. Since there is no agreed upon international standard for national export control implementation, understanding the 21st century evolution of governments' approach to strategic trade controls is vital to establishing an illustrative set of functional requirements for countries seeking to implement controls in ways that can defeat known proliferation procurement techniques.[6]

Once an illustrative set of export control system requirements is described, this article then answers the second question by plugging these functional requirements into the maturity-model approach to system development outlined in the World Customs Organization's (WCO's)

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5   For one approach to country assessments focusing on countries' ability to implement systems of control in relation to the potential proliferation risk posed by their industrial base see U.S. Department of Energy, Office on Nonproliferation and Arms Control, "FY2016-FY2020 Strategic Implementation Plan," <https://www.energy.gov/sites/prod/files/2017/10/f37/npac_strat-plan_2016_to_2020%5B1%5D.pdf>.

6   The terms "export controls" and "strategic trade controls" are used interchangeably in this article even though they are interpreted differently from one country and institution to the next. For the purposes of this article, references to both terms are intended to connote law-based systems of national authorities charged with the regulation of supplier regime-listed goods and the detection of these goods when they have fallen outside of regulatory control.

Strategic Trade Control Enforcement (STCE) Guide.[7,8] Maturity models can "…facilitate internal and/or external benchmarking while…providing guidelines through the evolutionary process of organizational development and growth."[9] In other words, the maturity model approach provides a framework to answer the article's second question about institutional prerequisites for effective export control implementation.

The final section of this article provides anecdotal evidence from two assistance providers' experiences to further validate the maturity model approach to assessing partner countries' levels of export control development.[10] These two assistance providers -- the U.S. Department of Energy's International Nonproliferation Export Control Program (INECP) and the European Union's Partner-to-Partner (P2P) Program – recently adopted this approach and have started using it to adjust the scope and timing of assistance so as to increase the likelihood that partner countries are able to effectively absorb assistance, with the goal of moving countries from one level of maturity to the next.[11]

Questions surrounding the wise use of export control outreach resources matter not just to the larger assistance programs in Europe, Japan, and the United States, but also to a number of other governments. Canada, the Republic of Korea, and individual European Union Member States, among others, make in-kind financial and personnel contributions to U.S. and European Union export control outreach programs, support World Customs Organization (WCO) training programs, and undertake limited but important outreach of their own. Dozens of other countries and companies lend their expertise to the larger U.S. and European export control programs on

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7   This article focuses on two aspects of export control: the regulation of strategic goods and the detection of sensitive goods that have fallen outside of regulatory control. The sharing of information between these system functions is highlighted for illustrative purposes but there are any number of other accepted export control baseline requirements, including, as noted briefly below, the ability of regulators and enforcement authorities alike to effectively engage industry (e.g. all holders of sensitive goods and technology). This and other system elements are not reviewed here but could nevertheless be fruitfully included within the confines of this article's focus on enabling assistance programs to calibrate outreach on the basis of governments' institutional capacities.

8   World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>.

9   Lester A. Lasrado, Ravi Vatrapu, and Kim Normann Andersen, "Maturity Models Development in IS Research: A Literature Review," *Association for Information Systems Electronic Library*, No. 6 (2015), pp. 1-65.

10   The author uses interview data and his own experiences to summarize implementation trends observed by assistance programs in countries that receive assistance. This summation is necessarily anecdotal since these trends are based upon information that has been shared in confidence with assistance providers. It is nevertheless noteworthy that the two programs reached similar conclusions about these trends independently of each other before sharing their respective observations under formal inter-governmental auspices.

11   It is important to note that, just as this article does not address the factors that go into a government's selection of countries targeted for outreach, it also does not review the security and economic incentives used by governments to prompt acceptance of assistance. For an example of the use of economic incentives, see: Richard T. Cupitt, Suzette Grillot, and Yuzo Murayama, "The Determinants of Nonproliferation Export Controls: A Membership-fee Explanation," *The Nonproliferation Review* Vol. 8, No. 2 (Summer 2001), pp. 69-80.

an ad hoc basis. The combined experiences of INECP and P2P, as well as those of the WCO's STCE Outreach Program, provide important clues as to how other outreach programs might also effectively target their limited resources.[12]

Functional Requirements Needed to Regulate and Detect Strategic Goods

The past two decades have witnessed substantial growth in the resources devoted by governments to assist partner countries seeking to strengthen their capacity to regulate and detect WMD-related commodities and know-how.[13] Dedicated and ongoing export control assistance programs emerged soon after the creation of the voluntary WMD dual-use supplier regimes starting in the late 1990s as part of U.S. effort to assist the Russian Federation and other countries emerging from the break-up of the Soviet Union with the development of so-called preventative defense measures, including export controls.[14,15]

The importance of globalizing this effort to keep pace with the growing ability of developing countries to supply and transship dual-use goods was subsequently highlighted by proliferation scandals resulting in two lessons learned for the export control assistance community. First, in the wake of 2004, revelations surrounding the A.Q. Khan global nuclear smuggling ring made evident that countries without national systems of export control could not be expected to detect the manufacture and transfer of WMD-related goods.[16,17] Second, it became equally clear based on the ways that the Khan network operated that national adherence to regime

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12   World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 23. See also, in this journal issue, William McComb et al., "Where There's a Way, There's a Will: The World Customs Organization's Capacity-Building in the Field of Strategic Trade Enforcement," *Strategic Trade Review*, Vol. 5, No. 7 (Winter 2019).

13   For example, in 2016, the largest single export control assistance program, the U.S. Department of State's Export Control and Related Border Security Program (EXBS), spent $58.7 million USD in more than 60 partner countries. U.S. Department of State, "Export Control and Related Border Security Program," <www.state.gov/t/isn/ecc/>.

14   Namely, the Nuclear Suppliers Group, the Missile Technology Control Regime, the Australia Group, and the Wassenaar Arrangement.

15   Jason Ellis and Todd Perry, "Nunn-Lugar's Unfinished Agenda," *Arms Control Today*, Vol. 27, No. 7 (October 1997), <https://www.belfercenter.org/publication/nunn-lugars-unfinished-agenda>, pp. 14-22.

16   "Bush's Speech on the Spread of Nuclear Weapons," *The New York Times*, February 11, 2004.

17   Perhaps the most well-known expression of this perspective from this time period came from a published Royal Malaysian Police Report, in which it explained that centrifuge components manufactured in Malaysia used for uranium enrichment were originally labeled as air conditioning parts. Malaysian officials used the Report as the basis for declaring that they would have stopped the production of machinery capable of manufacturing explosive nuclear materials in their country had they known what to look for. "Press Release by Inspector-General of Police In Relation To Investigation On The Alleged Production Of Components For Libya's Uranium Enrichment Programme," February 20, 2004, <http://isis-online.org/uploads/iaea-reports/documents/Malaysian_Police_Report.pdf>. Malaysia did not have an export control system at the time but has since put a comprehensive system in place drawing upon U.S., European, and Japanese assistance programs.

guidelines like those of the Nuclear Supplier Group (NSG) was an important but insufficient first step to the goal of detecting unregulated transfers of WMD-usable goods and know-how. Yet, while most supplier regime Participating Governments (PGs) responsible for supporting export control outreach realized that enforcement agencies needed to be enlisted to help detect the smuggling of WMD-related components, they had not for the most part systematically engaged their customs and other law enforcement agencies on the subject and thus could not explain to outreach partners how to do so.

This failure arose to a large degree from the complexity of the task at hand. Most WMD-related items are commonly traded dual-use goods with legitimate commercial applications that are often indistinguishable to the untrained eye from similar goods with military applications. To add to the complexity of detecting unlicensed, WMD-related transfers, and as the A.Q. Khan scandal revealed, even PGs with advanced export control systems where companies have strong export control compliance programs in place had been unable to prevent insiders from diverting illicit dual-use transfers. In sum, as of 2004, when UNSCR 1540 established a global requirement that countries prevent the unregulated transfer of WMD-related commodities, most PGs, not to mention other countries with nascent systems of control, were generally unable to do so if these goods were intentionally routed around national licensing authorities.[18]

The Evolving Status of Detection Subsequent to the Passage of UNSCR 1540

The urgency of effectively regulating and facilitating legitimate trade while at the same time detecting potentially illicit shipments placed export control assistance providers in a difficult position as outreach programs expanded during the mid-2000s onward. Capacity-building programs would need to provide licensing and government-industry outreach trainings in a growing number of countries while also enhancing partners' enforcement capabilities by providing training on how to detect illicit shipments of potentially controlled goods. However, as noted above, assistance providers had very little experience upon which to base the development of export enforcement training.[19] This prompted a decade-long effort by governments of leading supplier countries to develop and integrate the methods and capabilities needed for detection into assistance providers' training programs.[20] Although not an outreach program in its own right, the Proliferation Security Initiative (PSI) also helped underscore the importance of developing these methods during this time period by raising awareness as to the

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18   Gordon Corera, *Shopping for Bombs: Nuclear Proliferation, Global Insecurity, and the Rise and Fall of the A.Q. Kahn Network* (Oxford: Oxford University Press, 2008).

19   The Netherlands was one of the few countries that already had some level of WMD commodity detection capability in place beginning in the 1980s in the form of a specialized interagency team of customs and licensing officers responsible for the enforcement of strategic trade controls and sanctions under the Dutch Ministry of Economic Affairs. This capability was transferred in 2007 to Dutch customs. Knowledge about WMD-sensitive goods is still regularly made available to Dutch customs officers as is a means to seek technical advice in the event that suspect goods are detected. (November 2019 Interviews with Dutch Government Officials).

20   For information on the progress made by 2011, see Todd E. Perry, "The Growing Role of Customs Organizations in International Strategic Trade Controls" in James Doyle ed., *Nuclear Safeguards, Security and Nonproliferation: Achieving Security with Technology and Policy*, (Amsterdam: Elsevier, 2011).

importance of detection capabilities as a complement to licensing and government-industry outreach capabilities in line with UNSCR 1540 requirements.[21]

The Integration of Detection into Contemporary Systems of Control

Ongoing efforts on the part of assistance organizations to develop export enforcement training for their partners created a body of effective enforcement practices focused on how customs detect and interdict WMD-related goods. Customs experts subsequently worked together to assist the WCO in the creation of its 2015 Strategic Trade Control Enforcement (STCE) Implementation Guide. The STCE Implementation Guide, divided into sections for both senior- and working-level officials, explains how customs functions, such as risk management, targeting, physical inspections, audits, and investigations, can be used to thwart illicit cross-border movements of controlled goods outside of regulatory control.[22] Most importantly for those in the export control assistance community seeking to establish an overarching model for system effectiveness, the STCE Implementation Guide identifies what kind of information must be shared between customs administrations and counterpart licensing agencies in order to optimize these respective export control functions.[23]

The WCO STCE Implementation Guide also shows that detection is only the first step toward full customs functionality with respect to strategic trade control enforcement. For example, once frontline officers detect potentially illicit shipments, and once it is determined that suspect shipments contain goods of potential use to a weapons program, the Guide underscores how investigative and prosecutorial agencies must also be prepared for the very difficult task of establishing how or if a company intended to provide assistance to a weapons program. Doing so is especially difficult, since, again, most export controlled goods are inherently dual-use, with both military and civilian applications. Assessing the potential weapons use of a given shipment therefore requires strong coordination with cognizant licensing and supporting technical and/or intelligence organizations since enforcement agencies do not typically possess an in-depth

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21   Tracey-Ann Wellington, "The Impact of the Proliferation Security Initiative on the Interdiction of Weapons of Mass Destruction," in Mark Cancian ed., *Project on Nuclear Issues: A Collection of Papers from the 2016 Nuclear Scholars Initiative and PONI Conference Series* (Lanham: Rowman and Littlefield, 2017), pp. 126-35 and United Nations, "1540 Committee," <https://www.un.org/en/sc/1540/about-1540-committee/general-information.shtml>.

22   Shipments of regime-listed goods from countries without national laws in place to control them are not illegal *per se* within a national context. However, if non-state actors like companies or procurement agents are involved, a supplier's failure to regulate them contravenes the UNSCR 1540 Operative Paragraph (OP) 3(c) requirement that countries "Develop and maintain appropriate…efforts to detect, deter, prevent and combat…the illicit trafficking and brokering…" United Nations Security Council Resolution 1540, S/RES/1540, New York, April 2004.

23   "For effective enforcement, sharing information with and by Customs is often essential, and regulatory or administrative accommodation may be needed to permit it." World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 18.

understanding of export controlled goods.[24] As it turns out, this very same ability to understand an item's potential WMD application is immensely helpful on the front end of the detection spectrum too, since it is only through custom's interactions with national licensing officials and industry that they can come to understand legitimate flows of exported or transshipped dual-use goods by the industrial sector in ways that enable them to detect anomalous – and therefore potentially suspect – shipments.[25]

Consequences for Assistance Providers of Integrating the Detection Element of Controls

As noted above, developing export control capacity-building tools in support of these enforcement functions proved challenging for assistance providers. Their countries were in the process themselves of creating the means to detect and investigate illicit exports of goods outside of regulatory control.[26] Even when assistance providers were able to take into account internal advances in the detection field to strengthen their externally focused export enforcement assistance efforts, accompanying interagency patterns of information-sharing had not for the most part been routinized. Without these capabilities in place domestically, it was difficult for assistance programs to paint a cogent picture for partner countries about things like the imperative of collaboration between cognizant regulatory and enforcement organizations in order to maximize a country's detection potential.

In this context, the WCO's ability to outline the functional prerequisites to establishing detection and related capabilities like investigations in its STCE Implementation Guide and to cast these prerequisites as essential complements to national licensing functions marked a watershed moment in the development of effective approaches to export enforcement and thus

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24   With regards to the importance of intra-enforcement collaboration an "…investigation[s] can develop information identifying broader involvement, gaps in security, source funding and other important information to further enhance enforcement efforts by improving risk assessment and profiling." in World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 28. In the United States, efforts to this end through the Enhanced Export Control Reform Initiative (ECRI) strengthened coordination among investigatory agencies. For example, in 2010, the Obama administration signed an Executive Order that established the Export Enforcement Coordination Center (E2C2)." For more information on ECRI, see Ian F. Fergusson and Paul K. Kerr, "The U.S. Export Control System and the Export Control Reform Initiative," *Congressional Research Service*, October 20, 2018, <https://crsreports.congress.gov/product/pdf/R/R41916>.

25   For example, due to the U.S. Department of Energy National Nuclear Security Administration's support to the United States' dual-use licensing process, DOE and its national laboratories have developed technical resources that enable customs administrations to distinguish between controlled and uncontrolled versions of similar commodities using the so-called "commodity fingerprints" approach. See Department of Energy, "NNSA Develops 'Fingerprinting' Technique for Exports to Keep WMD Building Blocks out of the Wrong Hands," September 24, 2018, <https://www.energy.gov/nnsa/articles/nnsa-develops-fingerprinting-technique-exports-keep-wmd-building-blocks-out-wrong>.

26   European Commission, "Report on EU Export Control Policy," December 2018, <http://ec.europa.eu/trade/import-and-export-rules/export-from-eu/dual-use-controls/>, Section 1.1.1.7.

to the export control assistance effort writ large.[27] In other words, by virtue of the WCO's status as a nearly universal multilateral institution, the STCE Implementation Guide establishes a multilateral level norm that reinforces the imperative of detection and other enforcement-related sub-functions while simultaneously describing concrete steps that any country can take to implement detection strategies with support to and from national export control licensing and related technical organizations.

From the vantage point of enabling assistance providers to explain the prerequisites to establishing a comprehensive licensing and detection focus to export control system development, the Implementation Guide makes it clear to assistance providers that the two aspects of this approach must be co-dependent if either are to be truly effective. The corollary to this from an assistance provider's perspective when establishing the necessary conditions for a training program is that national regulatory and enforcement functions should no longer be represented as independent pillars but instead should be seen as interdependent.

It still is important for assistance providers to impart specific skill sets to specific audiences on both sides of the regulatory and detection spectrum. However, higher level discussions with export control agency leaders must portray export control development as a necessarily holistic enterprise in which an emphasis on information-sharing between these and other export control elements is a prerequisite to the successful development of each system component.

Ensuring effective interagency cooperation is not a panacea for assistance providers or recipients alike. There is far more to system effectiveness and sustainability than the basic first step of establishing expectations as to what the functional elements of an effective system should resemble and how these elements might relate to one another. But it seems clear that effective practices leading to comprehensive system development would include ensuring that information flows between cognizant agencies on both the licensing and enforcement sides of the equation. Comprehensive maturity model-based approaches to national system development would then likewise need to fully capture essential information-sharing processes amongst and between licensing and enforcement agencies and other agencies as well. If this approach can be used to capture the basic stages of export control system advancement, assistance providers can then take account of measures of export control performance that transcend system elements in favor of a holistic approach to system development that directly connects interagency cooperation to risk reduction.

Maturity Models' Impacts on the Pace and Focus of Assistance

Given the context provided in the previous section about the development and subsequent expansion of the enforcement elements of overall export control-related practices during the mid-2000s onward, the first of the two earlier questions arise: What are the main essential outlines of an export control maturity model that can be used to track a country's export

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27   The STCE effort outlined in the Implementation Guide was subsequently reinforced at senior levels within the WCO in the Punta Cana Resolution of the Policy Commission of the World Customs Organization. See World Customs Organization, "WCO Issues the Punta Cana Resolution," December 10, 2015, <http://www.wcoomd.org/en/media/newsroom/2015/december/wco-issues-the-punta-cana-resolution.aspx>.

control development? As the WCO STCE Implementation Guide indicates, "…a maturity model is a set of structured levels that describe how well behaviors, practices, and processes of an organization can reliably and sustainably produce required outcomes."[28] For the purpose of evaluating national export control systems involving multiple export control-related governmental organizations, an export control maturity model needs to be specific enough to capture the behaviors of single organizations and broad enough to capture the behaviors and interactions between organizations within potentially complex, multi-organizational systems.

Again, since there is no international treaty-based norm as to how the export control-related aspects of UNSCR 1540 requirements should be implemented, any fully developed export control maturity model is bound to be subjective with regards to its scope and content. This said, some important guideposts as to what a fully functional system might look like have been developed through the compilation of "effective practices" by the UNSCR 1540 Group of Experts, which are publically available on the UNSCR 1540 Committee website or in UNSCR 1540-related academic literature.[29] This includes those practices promoted by international organizations (IOs) like the International Atomic Energy Agency (IAEA), the Organization for the Prohibition of Chemical Warfare (OPCW), the WCO, supplier regime-recommended practices, and specific legislative practices championed by individual countries.[30,31] In other words, through these and related resources, enough information is publicly available for countries to benchmark their export control development in line with generally known effective practices. The WCO maturity model provides a useful framework for these benchmarks. Its four customs-focused stages are described below in relation to complementary licensing and other export control-related practices. Per the STCE Implementation Guide, these elements are needed to ensure adequate information-sharing within a system of control to address evolving proliferation threats.

The WCO STCE Maturity Model: Implications for Assistance Providers

The WCO STCE Implementation Guide's maturity model contains four levels of STCE maturity: *unsupported*, *nascent*, *established*, and *enabled*. At the first and lowest *unsupported* level, the foundations for STCE such as a legal framework and mandate do not exist and

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28   World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 18.

29   An early example of how this data might eventually be used by the UNSCR 1540 Committee Group of Experts can be found in Richard T. Cupitt, "Export Controls and Implementing UNSC Resolution 1540 (2004)," Carnegie Conference on Nonproliferation, Washington, DC., November 7, 2005, <www.carnegieendowment.org/static/npp/2005conference/presentations/cupitt_export_controls.pdf>. For a comprehensive review of information and approaches available as of the 2016 UNSCR 1540 Review Conference, see Olivia Bosch, "UNSC Resolution 1540: Effective Practices to Facilitate States' Implementation and Assistance" in "Towards the 2016 Comprehensive Review: Former Experts Assess UNSC Resolution 1540," Institute for Security Studies, September 2015, <https://issafrica.s3.amazonaws.com/site/uploads/Mono191.pdf>.

30   See The Wassenaar Arrangement, "Best Practices for Effective Enforcement," September 7, 2017, <https://www.wassenaar.org/best-practices-effective-export-control-enforcement/>.

31   See 1540 Committee, "List of Legislative Documents," United Nations, <www.un.org/en/sc/1540/national-implementation/legislative-database/list-of-legislative-documents.shtml>

efforts to implement STCE measures (and by extension, any form of export controls at all), are unsupported. Little can be done by assistance programs at this stage beyond providing basic awareness raising to advance the development of customs and other STCE capabilities. Under these circumstances, the STCE Implementation Guide notes that senior customs managers must be engaged by assistance program personnel to secure high-level commitments and to map a pathway towards the reform of customs practices and ultimately the passage of an export control law. The same can be said for export controls overall at the unsupported stage: senior officials from across a government's relevant agencies must be engaged with the aim of creating a national-level plan for export control development.[32]

At the second stage of development, the WCO STCE Implementation Guide notes how, following the engagement of senior level leaders, a customs commitment to enforcement can be generated "…but the implementation is nascent or just starting to take hold." At this juncture, a few key individuals may champion the effort, but they also may be isolated and lack standard mechanisms and procedures for carrying out controls. The same can be said at this stage for export controls writ large: licensing and other technical expert champions from governmental agencies may have emerged as a consequence of assistance-related engagements, or due to interventions by other supplier state governmental representatives, either on their own behalf on or behalf of one or more supplier regimes. As the STCE Implementation Guide suggests, implementation efforts at the *nascent* stage "...should focus on establishing the STC program, including the mechanisms for coordinating the role of Customs [or other relevant organizations] in the larger whole-of-government STCE process."[33] Importantly for the broader task of establishing an export control-focused maturity model, the STCE Implementation Guide's language indicates how, even prior to the development of an export control law and related regulations, introducing the concept of interagency coordination amongst supporters of an emerging system of control is imperative to its eventual effective implementation.

The Guide notes that the next stage of maturity is an *established* capability, which means that "…an institutional framework for all necessary aspects of control is in place, so that the organizational capability and the overall system stands the chance of achieving [the fourth enabled stage for controls] to function effectively." It is notable that only at this final *enabled* stage is a customs administration capable of not just establishing but also fully implementing vital strategic trade control-related internal procedures, not to mention those external to its organization, such as the sharing of information with licensing agencies. For customs, this means implementing the inherently enforcement-related aspect of the STCE mission such as: (1) the establishment of outbound enforcement teams capable of targeting and inspections, (2) the establishment of national risk management (targeting) centers, capable of collecting and processing data in a timely fashion and (3) the training of front line inspectors so that, especially based on tips from their targeting center or national intelligence communities, suspect goods

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32   As noted earlier, engaging senior leaders in this way is often beyond the reach of assistance implementers. However, at the behest of sponsoring governments and within the confines of working level awareness raising engagements, assistance providers will often encourage partners to initiate planning by providing lists of key decisions requiring attention within a partner's overall planning process.

33   World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 23

can be inspected and, if necessary, detained.[34]

For other export control elements like licensing at the established level of development, this would mean ensuring that a licensing body has been created and is being staffed by technical experts needed to support them. At this level and subsequently at the enabled level, these experts would not only be able to apply regime-recommended risk analysis methods to the licensing process, but also be able to share and use all available information for the complex set of considerations that go into applying so-called catch-all controls to items not included on national control lists, but of potential use to WMD programs.

Export enforcement and licensing capabilities at the highest enabled level of maturity must, per the STCE Implementation Guide, involve actors within a national system of control like customs and licensing agencies, and ensure that information-sharing mechanisms are established between them. For example, a key capability at this level includes "timely and regular [technical] reachback mechanism[s]," which are needed to assess whether or not a suspect shipment is worthy of further scrutiny due the possibility that it could contribute to a WMD program. Basic reachback capabilities of this kind sometimes reside within a customs administration, but more sophisticated layers of reachback capability typically reside within licensing bodies or are resident in technical organizations that support the system as a whole.[35]

Information-sharing as a Central Element of System Maturity

As noted above, a central capability of the WCO Implementation Guide's enabled category has broad, export control system-level implications: the existence of "regular interagency coordination mechanisms and information-sharing protocols." Typically, within the confines of an advanced system capable of licensing WMD-related goods and of detecting those that have fallen outside of regulatory control, these mechanisms would include customs coordination with licensing and other technical organizations in the sharing of at least two basic kinds of information. The first involves making sure that as customs conducts its targeting and risk management analysis of outbound goods, it has a list of destinations provided by the national licensing authority that require a license under national regulations and in relation in UNSCR sanctions resolutions.[36] Some of the most enabled systems of control also find ways to ensure

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34   Ibid, p. 24.

35   In the most advanced supplier states, the first layer of reachback allows regulatory and enforcement agencies to determine if an item could possibly contribute to a WMD program. Only after this, at a more sophisticated technical and legal level of analysis, are export control analysts within licensing authorities able to determine whether or not an item is or should be controlled under national law, either by virtue of its inclusion on a national control list, or by virtue of the fact that, from a catch-all licensing perspective, there is a diversion risk that policy makers are unwilling to endure. This said, even within the most sophisticated Asian, North American, and European systems, the application of catch-all controls is made exclusively at the discretion of a government's regulatory authority, that is unless an item that is not included on a national control list is nevertheless contained within a United Nation's Security Council sanctions resolution.

36   One of the most important sources of information for risk profiling and targeting are screening lists of proscribed entities. The United Nations Security Council Sanctions Committees maintain an online compendium of sanctions lists. World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 25.

that customs officers responsible for targeting have access to information provided by their national licensing agency related to licensing requests that have been denied. This allows customs to be aware of instances when a company attempts to export a controlled item despite having been previously denied a license for the export. It is also key to establishing a level playing field for exporters so that compliant companies are not the only ones prevented from exporting to risky destinations.

The second kind of information-sharing at the enabled level takes place in the opposite direction from the first and involves customs' role in sharing information with licensing authorities. Customs administrations log all declared shipments. Data from shippers' customs declarations, if shared, can allow licensing organizations to identify companies that may be exporting controlled goods without required licenses. This data may also reveal shipments that do not appear risky from a proliferation perspective on their own, but which may come to be seen as risky by the licensing body when seen through the lens of a compilation of export control licenses and applications processed to date. Detection under these circumstances takes place well after exports have left a country. However, many countries' bilateral law enforcement arrangements enable the country of origin to recall suspect transfers.[37] Longer term, some countries' statute of limitations allow penalties to be assessed should it be discovered that an exporter has shipped goods in a way that violates the terms of their license.[38]

Assistance providers and sponsors of peer-to-peer exchanges cannot necessarily train licensing and customs organizations to undertake these kinds of information-sharing protocols. But case studies, exercises, and tailored assistance such as customized IT systems can highlight the importance of establishing them. At all stages of export control development, governments ultimately have to decide for themselves how to manage their systems of control. However, national export control managers and regulators can be encouraged both at the onset of nascent export control development and then especially as systems are becoming established to consider the value of doing so. Information-sharing decisions taken by a country at the established stage are a signal indicator of a country moving towards an enabled level of maturity. Proactive efforts of this kind show that a partner is becoming sufficiently aware of its own implementation gaps that it is able to take steps on its own to request customized support either in the form of training or peer-to-peer information exchanges.

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37   For a list of U.S. Governmental requirements that pertain to the return or unloading of cargo at the direction of the U.S. Department's Bureau of International Security's Office of Export Enforcement or the U.S. Department of Homeland Security, see "Return or Unloading of Cargo at Direction of BIS, the Office of Export Enforcement or Customs Service," Code of Federal Regulations, Title 15, Chapter VII, Subchapter C, Part 758.8 (2012), <https://www.govinfo.gov/content/pkg/CFR-2012-title15-vol2/pdf/CFR-2012-title15-vol2-sec758-8.pdf>, pp. 510-511.

38   Matthew Bunn, Martin B. Malin, William C. Potter, and Leonard Spector, eds., *Preventing Black-Market Trade in Nuclear Technology* (Cambridge: Cambridge University Press, 2018). In the United States, the statute of limitations on export control offenses falls under the general guidelines of the U.S. Criminal Code: Title 18 - Crimes and Criminal Procedure, 620-621 § 213-3282 (2005), <https://www.govinfo.gov/content/pkg/USCODE-2005-title18/pdf/USCODE-2005-title18-partII-chap213-sec3282.pdf>. While 18 USC 3282 is not specific to export control offenses, it sets the standard that unless specifically enumerated under separate regulations, a violation must be indicted within five years of the act.

The sharing of information by licensing and other export control technical specialists with customs serves another analytically subsidiary and yet vital awareness-raising purpose from an export control assistance provider's perspective: licensing officials generally understand the commodity control lists, have previously analyzed a given export destination's overall nonproliferation credentials, and will usually have developed, either through a review of their own records or by combining these records with other countries' open source denied entities lists, a good understanding of the proliferation risks associated with certain kinds of export license requests. By contrast, if unguided, customs administrations are often hard pressed to understand the technological- or end use-related proliferation risk associated with a given export, and have difficulty winnowing down massive volumes of customs declaration data so that targeting queries and targeting-based inspections can be conducted.[39]

Finally, information-sharing between licensing and customs authorities can also be useful from a risk management standpoint with respect to industry outreach. Within the confines of a fully functional, enabled system of control, customs and licensing officials should ideally engage industry in a coordinated way to make compliance officers aware not only of their export control obligations but also of the specific ways in which goods and technology manufactured and held by industry might be of use to foreign weapons programs.[40] With these sorts of coordinated inputs, industry is far more likely not just to comply with national export control requirements, but to also report suspicious procurement attempts or inquiries to appropriate governmental authorities.

Assistance Providers' Use of Maturity Models

Two assistance programs, the European Union's Partner-to-Partner (P2P) Program, and the U.S. Department of Energy/National Nuclear Security Administration's International Nonproliferation Export Control Program (INECP), have adapted maturity model approaches to their analysis of partners' institutional capabilities.[41] Both programs' maturity model approaches take account of the aforementioned information-sharing pre-requisites for partners' export control system development. INECP's assistance-related activities are implemented and overseen by its parent DOE/NNSA's Office of Nonproliferation and Arms Control, which closely coordinates all of its export control activities with relevant U.S. Governmental agencies.

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39   As noted in the WCO STCE Implementation Guide, "This is generally the case for STCE, where the international movement of strategic goods is typically subject to the authorization of a licensing or permitting agency. This highlights a key dependency for Customs in STCE, with the need for the licensing or permitting agency to confirm to Customs whether [or not] a violation exists." World Customs Organization, "WCO Strategic Trade Control Enforcement Implementation Guide," <http://www.wcoomd.org/en/topics/enforcement-and-compliance/instruments-and-tools/guidelines/wco-strategic-trade-control-enforcement-implementation-guide.aspx>, p. 23.

40   "Where STC is a collective effort of multiple agencies (including Customs, a licensing or permitting agency, and investigative agencies), joint outreach demonstrates coordination, ensures consistency, and fosters collaboration. It can also promote understanding of the process (and associated delay) that ensues when Customs detains a suspect shipment, serving both to encourage compliance to avoid such delays and to improve the Customs-trade relationship in the event of such delays." Ibid, p. 24.

41   The information in this section about P2P come from the author's interviews with P2P staff. Information about INECP comes from the author's 18 years of experience in his oversight of that program.

In addition, some INECP activities are funded by the U.S Department of State's Export Control and Related Border Security (EXBS) Program and overseen by the Department of State's Office of Export Control Cooperation. The P2P is funded and overseen by the European Commission under the auspices of DG DEVCO and its activities are implemented by a consortium led by Expertise France, along with the German Federal Office for Economic Affairs and Export Control (BAFA), as well as experts from Kings College London, Dutch Customs, and Belgium's University of Liege.[42,43,44,45]

For both the U.S. and EU programs, the selection of outreach partners is consistent with their governments' respective trade and security policies and interests, often in consultation with the assistance programs themselves. And both use a partner country's ability to supply and transfer controlled goods and know-how as a means to assess the kinds of proliferation risk associated with assistance recipient countries.[46] Then, using a combination of assessment visits alongside information from prior engagements, a "roadmap" (P2P) or "country engagement plan" is created that governs upcoming implementation in one- to two-year increments, before the process is revisited by donor country sponsors and related advisory organizations. For each assistance program, the roadmap or engagement plan includes an assessment of each country's level of export control development so that it can be placed into a maturity model category. Then, for each category, the programs maintain corresponding sets of trainings, developmental approaches, and technical tools that can be offered to assistance recipients based upon their ability to effectively use and absorb these resources. Common outreach implementation tactics

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42   The use of the term "overseen" means similar things in each of these instances. The European Commission and the U.S. Department of State both drive the selection of countries engaged, in a manner consistent with their respective foreign policy processes, with the cognizant outreach organizations. EXBS and P2P determine the overall parameters of engagement. In addition, INECP has U.S. Department of Energy National Nuclear Security Administration (DOE/NNSA) funding which is used to independently oversee and support additional outreach activities, but these activities too are coordinated with EXBS and the broader U.S. interagency export control community.

43   DEVCO is the European Union's Directorate General for Development and Cooperation. See European Commission, "About International Cooperation and Development: DG DEVCO," June 10, 2016, <https://ec.europa.eu/europeaid/general_en>.

44   "BAFA" stands for Bundesamt für Wirtschaft und Ausfuhrkontrolle, or Federal Office for Economic Affairs and Export Control.

45   For an overall comparison of these export control outreach programs and others, see Andrea Viski, "United States and European Union Strategic Trade Assistance: A Comparative Analysis," Strategic Trade Review, Vol. 5, No. 5 (Autumn 2017), pp. 93-110.

46   Both programs also use information about target countries' ability to supply and transfer goods to help implementers calibrate partners' developmental strategies with the aim of reducing proliferation risks associated with each country's ability to manufacture or transfer strategic goods. To do this, the European Commission draws upon the export control expertise of the Joint Research Center (JRC) to establish the overall framework for P2P engagement consistent with EU-wide trade- and security-based export control policies as summarized in its rating tool (January and November 2018 research interviews of JRC and P2P staff). By contrast, INECP decides who and why to engage in line with DOE/NNSA policy guidance and within the aforementioned general trade and security-focused policy parameters set by the Department of State. The bottom line is that both P2P and INECP have one process for determining which countries to engage and why, and yet another, once assistance targets are selected, to assess counterparts' systems of control. A final level of evaluation, as reflected in each program's use of maturity models, is developed and implemented by the outreach programs themselves.

used by both programs within the confines of their nearly identical maturity model approaches are described below.

Implementation Tactics: From Unsupported to Nascent Levels of Maturity

For both programs, governmental officials from unsupported systems are exposed to awareness raising workshops and consultations. Formalized training is rarely proposed by either program at this stage of maturity since audiences in need of skills development have not as of yet been identified or empowered. By contrast, nascent systems, in which some export control system-related tasks have been assigned, receive both basic export control awareness and skills development training. If these interventions alongside encouragement by relevant U.S., EU, or other diplomatic, security, and trade-related governmental organizations do not foster the kinds of political support for the passage of laws and development of agency capabilities needed to establish systems of control, INECP and P2P will tend to recommend to their governments a slower pace of engagement targeted only at those national audiences with specific export control functional assignments.[47] This said, both programs will from time to time continue providing assistance to countries that are clearly not institutionally prepared to adopt export controls. This is because it has been shown in some instances that repeated engagement when accompanied by higher level political encouragement can help countries develop the political will to move towards established status.

The primary hurdle to advancement when assistance recipients occupy a space between the unsupported and nascent stages of development is not so much insufficient political will as insufficient institutional capability. In other words, national leaders may understand the trade and security benefits of having a system of control in place, but might nevertheless be unable to motivate or otherwise inculcate its public and private sector institutions about the importance of doing so.[48] In fact, in instances where the political leadership on both sides of the assistance provider-recipient relationship have been unable to identify institutions with the ability to establish systems of control, recipients have been asked by donor countries to identify new national organizations to lead the export control development effort in the belief that, by dint of some combination of newly-selected organizations' legal authorities and institutional capabilities, they might stand a better chance than the prior ones at success. For INECP, this shift in target agencies is a leading cause for the repeated provision of awareness raising and basic training in countries where initially engaged institutions have proven unable or unwilling

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47   The P2P implements legal regulatory assistance on behalf of the European Union. By contrast, INECP does not provide legal-regulatory assistance. Instead, in the U.S. context, EXBS coordinates this level of assistance on behalf of the U.S. Government through the deployment of governmental and/or academic expertise.

48   In a study conducted in 2007 on why countries implement export control norms (or not), a group of researchers compared implementation-related data from dozens of countries and concluded that even when national leaders understood the strategic value to their country of export controls, they might not necessarily be able to engender institutional compliance, and thus concluded that institutional factors more than leadership variables were at the heart of countries' failure to adopt controls. Douglas M. Stinnett, Bryan R. Early, Cale Horne, and Johannes Karreth, "Complying by Denying: Explaining Why States Develop Nonproliferation Export Controls," *International Studies Perspectives,* Vol. 12, No. 3 (2011), pp. 308-26.

to champion the cause of export control system development on their own.[49]

For both programs, it is important to distinguish between countries that appear incapable of ever passing an export control law and establishing a licensing system, and those where, at some level, export control champions are in favor of establishing a system of control. Under the latter circumstances, EXBS has repeatedly enlisted INECP to engage customs or other enforcement agencies to enhance awareness in the enforcement realm on an introductory basis, with the aim that interagency discussions between, for example, a customs administration on the one hand, and a foreign or trade ministry on the other, might sufficiently raise awareness and demonstrate a country's self-interested rationale to establish a system of controls. This appeal too often involves overcoming resistance from some combination of other agencies, other branches of government, or the private sector, one or more of which may see controls as more economically burdensome than beneficial. Here again, the repetition of basic awareness-raising and training has in some instances proven useful in the long run, if only so that institutions not initially engaged might gain exposure to export control fundamentals and thus to the potential trade and security benefits of controls.[50] There is some evidence that the EU P2P Program has considered this approach as well, now that it is moving more comprehensively than before to address the enforcement aspects of export control system development through sponsorship of WCO trainings and through the creation of tailored enforcement-related curricula for foreign partners.[51]

However, even when these approaches succeed, situations arise where the subsequent buy-in of organizations needed to implement an export control law cannot be achieved and a country fails to attain an established maturity status. This critical failure point is not always foreseen by assistance providers, since the passage of a law is understandably taken as a sign of a country's willingness and ability to publish regulations, establish licensing organizations, and adapt enforcement agencies to the task of helping detect WMD-related goods that have fallen outside of regulatory control. This false positive results from the fact that, for some partner countries, it is far easier for organizations responsible for national governance of export controls to put a law in place than to establish the institutional means to implement them.

One warning sign that export control-related legal developments might not easily lead to effective implementation is, ironically, the similarity between an assistance providers' national export control system, and systems put in place by assistance recipients. As noted elsewhere in

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49   Since 2001, in at least half of INECP's activities focused on countries that originally did not (or still do not) have national systems of control, one or more of the organizations originally designated by national governments to take a lead or supporting role in the establishment of controls were replaced or took on different roles, with organizations not previously involved in the effort taking on supporting if not leading roles subsequently.

50   This means that, to increase the likelihood of success, assistance providers must identify all potentially impacted national agencies. To this end, for example, every five to seven years, EXBS conducts routine assessments of all partner countries' export control systems. The purpose of these assessments is to identify and help prioritize areas in which the EXBS program can most effectively work with the partner governments to advance mutual strategic trade controls and border security objectives and to help measure the effectiveness of EXBS's efforts over time. Author's interviews with EXBS staff, December 2018.

51   Author's interviews conducted with P2P and Dutch Customs STCE specialists in January, September, and November 2018.

economic development literature, outcomes designed to satisfy assistance providers' demands for institutional development can sometime take the form of mimicry rather than functional equivalence.[52] Developments like this make it all the more imperative that assistance providers establish baseline expectations with recipients from the outset as to the intended shape and content of assistance-prompted outcomes. This means that assistance providers must not only help partners establish the components of a system of control, but also share the kinds of criteria for system functionality with these partners that the assistance community applies when evaluating levels of export control system maturity. For example, recipients should be made aware that establishing specific export control-related capabilities within agencies and establishing requirements for information-sharing between them are key outward signs of effective implementation that demonstrate a willingness to continue maturing their systems of control after a legal-regulatory export control framework is put in place.

Implementation Tactics: From Established to Enabled Levels of Maturity

The U.S. INECP and the EU P2P spend the bulk of their resources providing training and other resources to countries at the established level. This is a function not only of assistance programs' desire to have the largest possible impact on risk reduction, but also of the fact that established partners tend to be the most receptive to receiving assistance in the first place. The receptivity to engagement on the part of these recipients means that assistance providers can build upon long-term partnerships and that the two sides can form expert teams capable of assessing where, how, and at what pace to deliver resources to an emerging system of control. A key aspect of this partnership is ensuring that the recipient takes on a growing share of the burden for identifying its own gaps and ensuring that the correct personnel are available and prepared to not only absorb new skill sets and procedures, but also to serve as trainers in train-the-trainer settings, so that acquired knowledge is replicated and sustained.

Ensuring that a true partnership is emerging between assistance providers and recipients is a key priority for INECP and P2P to ensure that governmental functions within recipient countries do not remain indefinitely dependent upon ongoing, outside assistance. One way to avoid this is to remain engaged with national export control champions whose relationships with erstwhile assistance providers and experts from other supplier states provide a sense of empowerment as to the importance of their newly developed systems. These relationships can, in turn, prompt champions to reinforce to their senior leadership that sustainable system development must remain a priority. It is therefore key, while jointly planning the eventual sunsetting of formalized bilateral assistance, for assistance providers to signal their willingness to continue engagement once formal assistance ceases. Ongoing interactions through exchanges and through champions' participation in third country assistance where possible provide internal validation as to the importance of effective system implementation. In other words, helping partners maintain national and international communities of experts capable of exchanging lessons learned from ever-evolving aspects of export control implementation is vital to the

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52   Lant Pritchett, Michael Woolcock, and Matt Andrews, "Looking Like a State: Techniques of Persistent Failure in State Capability for Implementation," *Journal of Development Studies*, Vol. 49, No. 1 (2013), pp. 1-18.

sustainment of emerging systems of control.[53]

Along these same lines, participation in regional and global export control workshops and conferences as well as in third country trainings led by INECP, P2P, and others provide a way for these programs, with support from EXBS and the European Commission, for individual export control champions to maintain standing amongst their peers and senior officials. Both programs will often advocate that all lead export control organizations within a country be invited to these sorts of activities to underscore the importance that assistance implementers and their sponsors attach to interagency coordination. The stakes in this are higher than often believed since, at this established level – one characterized as a steppingstone towards enablement status – a failure of interagency cooperation can stop further system maturation in its tracks and even result in substantial backsliding.

Another key tool deployed by assistance providers to highlight the work of export control champions and to highlight the imperative of higher level support is the so-called scenario-based exercise approach to engagement. Whereas training-based engagements at lower levels of system maturity emphasize transfer of specific knowledge, skills, and attitudes, these exercise-based engagements instead focus on exploring and strengthening partners' ability to implement their established systems, while underscoring for senior-level participants their countries' remaining implementation gaps. The participation of export control organizational leaders in these exercises and in their highly formalized "table top exercise" variant can be enormously helpful in ensuring continued system maturation, especially when organizational leaders are looking for ways to demonstrate to their senior leaders the importance of interagency information-sharing. As both programs have found, well-written scenarios that highlight specific licensing and enforcement gaps that might be resolved through stronger coordination can result in consensus-based commitments that address these gaps and underscore the imperative of reducing proliferation risks.

Conclusions

Nearly two decades of export control outreach by the United States and the European Union combined with other outreach initiatives supported by Canada, Japan, South Korea, and individual European Union Member States have provided the experience needed to develop comprehensive export control maturity models. These models cannot and need not be identical to one another, both because outreach programs' competencies vary, and because, as noted above, there is no single "one-size-fits-all" way to develop systems of control from either an assistance provider or recipient perspective.

However, experience suggests that there is consistency regarding the kinds of assistance and other engagement appropriate at each level of maturity, regardless of which capabilities a given maturity model might contain. Namely, with respect to the aforementioned categories, it would

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[53]   This dynamic has proven vital to the group of countries that joined the NSG in the 1990s. Regular regime plenaries and technical meetings along with participation in peer-to-peer activities with INECP, P2P, and others continue to provide the rationale for working level PG staff to obtain export control funding and political support from their national leadership.

appear that:

- Unsupported to Nascent systems require awareness raising, the development of national export control champions, and a push (or an assistance provider's willingness to wait for) adequate legal-regulatory development;

- Nascent to Established systems should focus on training to develop knowledge, skills, and attitudes as well as the development of implementation plans and procedures. Work at this level can be within the various export control pillars as needed but must anticipate regularized interagency information-sharing; and,

- Established to Enabled systems should focus on train-the-trainer programs, advanced training, and scenario-based exercises to promote interagency coordination and information-sharing with the aim of revealing and filling in remaining implementation gaps. Work at this level must transcend the pillars, with export control leaders seeking constant system improvement in order to address evolving proliferation-related challenges.

There are many reasons why countries do or do not advance on a forward trajectory towards increasingly complete export control system development and implementation. Assistance programs are not generally in a position to impact the broad economic and security-related drivers that determine whether or not a country will accept assistance or whether or not it will be willing to implement increasingly effective controls over time. However, as the WCO STCE maturity model shows, and as INECP's and P2P's recent adoption of the maturity model approach illustrates, their use can give assistance providers the means to work with willing partners to establish shared developmental objectives and to then systematically shape assistance and peer-to-peer resources that align with partner needs. If cooperation stalls, these programs are now, after many years of experience, also able to identify the proximate institutional reasons why a country is not able to make anticipated advances and to adopt tactics designed to encourage renewed progress. In other words, assistance programs are now better positioned than ever to identify approaches to implementation that maximize risk reduction opportunities when they arise while conserving resources that can be used for more promising possibilities when they do not.

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