



UNITED NATIONS INSTITUTE  
FOR DISARMAMENT RESEARCH

Seminar

**Towards a Practical and Implementable Arms Trade Treaty:  
Addressing Technology Transfers**

Monday, 14 November 2011  
15:00–18:00  
Palais des Nations, Geneva, Switzerland

**SUMMARY REPORT**

## **Introduction**

To support the 2012 negotiations of an Arms Trade Treaty (ATT), which aims to establish “the highest possible common international standards for the transfer of conventional weapons”,<sup>1</sup> the United Nations Institute for Disarmament Research (UNIDIR) is organizing a series of seminars in Geneva to further elaborate certain aspects of an ATT that are of specific relevance and are seen to require further discussion.

The half-day seminars, held at the United Nations Office at Geneva and funded by the Government of Finland, have so far addressed non-state actors and arms transfers under the future Treaty, the inclusion of small arms and light weapons (SALW) and ammunition in it, as well as technological developments in the sphere of conventional arms and how these could or should be addressed in an ATT.

The most recent seminar of the series was held on 14 November 2011 to discuss the issue of technology transfers and whether and how they could be covered in the future Treaty. During the meetings of the Preparatory Committee (PrepCom) for the ATT negotiations, several states have taken up the issue of technology transfers as a category falling under the future Treaty’s scope. Some have argued for the necessity of its inclusion, while others have warned about expanding the scope of the Treaty too much and calling for the exclusion of transfers of technology.

The seminar gave an overview of what is meant by transfers of technologies in the sphere of conventional arms and what arrangements are in place at the national and the regional levels to control these types of activities. It also discussed possibilities of including such transfers in an ATT: how that could be done, what the formulations in the future Treaty could be and what potential caveats could be related to expanding the Treaty’s scope to cover technology transfers. As a background paper to the seminar, a study was commissioned from the Fondation pour la recherche stratégique, which was presented and distributed to the participants. The event was open to all interested parties and despite several meetings in Geneva at the same time it was attended by around 40 representatives from the Permanent Missions in Geneva, UN agencies, international organizations and civil society.

This report presents a summary of the presentations made at the event as well as an analysis of ideas and recommendations put forward during its discussions. It reflects the impressions and views of the organizers at UNIDIR, based on their account of the proceedings and exchanges of views.

## **Summary of seminar proceedings<sup>2</sup>**

The presentations and discussion at the seminar were moderated by its Chair, Dr. Christiane Agboton-Johnson, Deputy Director of UNIDIR. In her opening remarks, Dr. Agboton-Johnson welcomed everyone to the seminar. She noted that the seminar was a follow-on to three other activities organized in Geneva by UNIDIR during the past two years on the ATT. Dr. Agboton-Johnson noted that the objective of the seminars has been to ensure that comprehensive dialogue takes place concerning the various aspects of the proposed treaty, including its scope, parameters and implementation.

With regard to technology transfers, Dr. Agboton-Johnson referred to the constantly evolving nature of the arms trade, where the physical transmission and trading of weapons has begun to be replaced by the transmission and diffusion of military technology, making the topic of this

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<sup>1</sup> See General Assembly, *The Arms Trade Treaty*, UN document A/RES/64/48, 12 January 2010.

<sup>2</sup> See the seminar agenda at the end of this report.

seminar both of great relevance and of importance to all UN Member States, regardless of whether they are mainly producing or importing weapons.

The UNIDIR remarks were followed by a statement by Ambassador Hannu Himanen, the Permanent Representative of Finland to the United Nations in Geneva, who noted that Finland has been happy to sponsor these ATT seminars, which have proven their worth in taking up concrete issues that for one reason or another have not yet been fully discussed in the PrepComs. He also said that, according to Finland, discussions like this are very valuable to the whole ATT process. On the theme of technology transfers, Ambassador Himanen noted that it enjoys wide support among UN Member States, but has also been questioned by some because of the possible negative impacts related to transfers of technology and illicit production. For Finland, technology transfers is an important element in any instrument regulating the arms trade, and an ATT without provisions on technology and technology transfers would really not be an option. With only three months until the last PrepCom and some eight months until the ATT conference itself, it is important to keep the momentum created at the meetings through supporting events. Finally, Ambassador Himanen noted that Finland has been actively engaged in the ATT process since its inception, and that the international community has come a long way towards a Treaty and the active engagement of all delegations in the discussions has been a pleasure to see.

The first presentation was delivered by Mr. Bruno Gruselle of the Fondation pour la recherche stratégique, who defined the issue of technology transfers and proceeded by making some suggestions regarding their possible inclusion in an ATT. He reflected on the evolving nature of the arms trade, including the growth in sophisticated weapons technology, but also the increasing competition between exporters and, more significantly, the evolution of customers demands and needs—from the exportation of complete weapons systems “off the shelf” to more complicated sub-systems requiring the integration of foreign technology into domestic systems.

Mr. Gruselle noted that, as a consequence, it appears necessary to create robust export control systems that will have the capacity to manage knowledge and know-how as well as material goods. Mr. Gruselle gave a variety of examples of some of the challenges that need to be overcome regarding the inclusion of technology transfers in an ATT. As with other elements of the ongoing ATT negotiations, Mr. Gruselle acknowledged the necessity of obtaining international consensus on a clear definition of “transfer of technology”. He specifically drew attention to the risk of using a “catch all” definition of transfers of technology by pointing out that it covers a vast spectrum of activities.

Mr. Gruselle also looked specifically at the issues that states face regarding the efficiency of their export control mechanisms. First, technology transfers encompass a large spectrum of domains and procurements activities. Obtaining an international consensus on what constitutes a transfer of technology could prove elusive as different states may consider some offsets as constituting limited transfers of know-how or industrial skill rather than transfers of technology. Second, export control regimes and national laws and regulations have created several processes meant to check the end-use of the transferred technology or to ensure that it is not retransferred to an unintended recipient. Hence, an international framework on transfers of technology should build on existing models and systems in trying to create some universal obligation on post-export mechanisms. Finally, the question remains highly sensitive to importing governments, particularly in developing countries for which the transfers of technology have become a competitive argument and to some extent provide a way to continue developing their defence economy and capabilities.

Mr. Gruselle also drew attention to the important issues of judging the sensitivity of a technology transfer by considering the technological capability of the recipient state to “absorb

knowledge in specific technical areas or of a given technical level” as well as the “willingness of suppliers”.

In trying to solve these complications, Mr. Gruselle discussed mainly two things: the real importance of technology transfers, and the current controls in national systems. He referred to different definitions currently used, for example by the Wassenaar Arrangement, and noted the different levels of importance of different types of technology transfers. In terms of existing arrangements, he noted that the Wassenaar Arrangement provides a solid definition of transfers of technology. As the main international tool meant to tackle sensitive transfers of military technology, the Wassenaar Arrangement encompasses a large spectrum of activities and gives national authorities a large basis on which they could control their own transfers.

Mr. Gruselle then offered some suggestions on what needs future discussion in the ATT process. He noted that the negotiators should continue working on transfers of technology to find a solution that would be most workable within an ATT—in this, it might prove useful to make a difference between the export of knowledge in forms that require less efforts from the recipient to absorb from transfers, which do not have such direct influence on the technological level of the buyer. He suggested that existing international frameworks and structures for transfers of technology should be incorporated into the ATT negotiations. Further, Mr. Gruselle noted that possibly, as it is already practiced in some regimes, the exclusion of operations related to technology in the public domain would prove useful, as trying to catch everything could actually do more harm than good to export control systems already facing more pressing challenges. To conclude, Mr. Gruselle argued that the inclusion of transfers of technology in an ATT could be accompanied by the establishment of a working group of experts tasked with trying to make the inclusion (and its national application) more efficient.

The next speaker was Ms. Sissel Solum from the Norwegian–Finnish defence company NAMMO. She began by briefly introducing the company she represented, and then proceeded with the question ‘why transfers of technology?’, where she explored two principle factors, why transfers of technology are necessary and important, firstly from the acquiring state/industry perspective, and secondly from the selling state/industry perspective. Some of the examples of the impact of transfers of technology for the buying states included the argument that national defence spending can facilitate the building of a stronger domestic industrial base, which ultimately brings profit back to the buying state. Transfers of technology also enable spin-offs from defence technology that can then be applied to civilian technology. Regarding the relationship between transfers of technology and the selling states, Ms. Solum explained that the inclusion of transfers of technology is often a requirement of the buying state within the deal (“offset arrangements”). She also pointed out that such deals allow for strong links between the supplier and the customer and enables them to develop fruitful long-term partnerships.

Ms. Solum also noted that there were examples of how transfers of technology were advantageous to both acquiring and selling states, for example in the contribution to interoperability (within NATO), and the promotion of time- and cost-saving by work sharing between several states. She particularly stressed the importance of arms manufacturers in building and developing strong relationships with the buying industries and states as a way of minimizing the risks of diversion from the regulated market.

Ms. Solum stressed the fact that sales to third states based on products coming from technology transfers from NAMMO require approval not only from Norwegian export authorities but also from the importing state authorities, and that Norwegian authorities only grant export licenses for transfers of technology if the receiving state complies with Norwegian export policies regarding re-exporting to third countries. She expressed the view that the regulation of transfers of technology should be based on the same set of rules as for the export of controlled products.

After Ms. Solum, Ambassador Sune Danielsson, the Head of the Wassenaar Secretariat, offered some thoughts about technology transfers from the point-of-view of experiences gained within the Wassenaar Arrangement. He began with offering a brief overview of the Wassenaar Arrangement, which is an export control forum of 40 states that is focused on improving the controls of conventional arms, related dual-use goods and technologies. He noted that the objective of the Arrangement is to uphold peace and security by promoting transparency and responsibility in transfers of arms and related materials, to prevent destabilizing accumulations of arms and to prevent their proliferation to terrorist groups. As Ambassador Danielsson explained, the Arrangement uses two lists of items within its control system: a munitions list and a dual-use list, both of which were created and are updated by consensus. The munitions list covers close to 300 items in 22 different categories, ranging from SALW, ammunition and munitions, to fighter aircraft, tanks and naval vessels, also including all software and technology designed for military purposes. The dual-use list incorporates items that were designed for civilian use but that may also have military applications or purposes, for example electronics, computers, special materials, sensors and aviation and maritime equipment.

On technology transfers within the Wassenaar Arrangement, Ambassador Danielsson elaborated first the definition of technology as it is used in the Arrangement's control lists, where technology is specific information necessary for the development, production or use of a product, and this information takes the form of technical data or technical assistance. "Technical data" may take forms such as instruction sheets, manuals, models, blueprints etc., and "technical assistance" is specified as information conveyed via training, consulting and other instruction services. Technology, as Danielsson continued to underline, is included in both of the control lists. The Wassenaar Arrangement considers it crucial to control dual-use technologies, since military equipment can often be produced from items that are not designed for military purposes. The definition of technology was developed to be very precise to avoid participating states from making different interpretations. Emphasizing the importance that technology is attributed in the Wassenaar Arrangement, Ambassador Danielsson explained that almost all technology in the dual-use list is also included in the sensitive and very sensitive lists. Each item included in the dual-use list has a specific subcategory for its related technologies. Certain technologies are included in the control lists even though the finished product may not be covered by the controls.

The Ambassador went on to point out that a major issue concerning technology transfers today is that modern communications make export controls very challenging. Unlike other commodities, technological information may be transferred via the internet or other electronic means as "intangible transfers of technology" or "ITT". The Wassenaar Arrangement considers it important to reach out to research institutions and producers and to encourage them to employ self-regulation and record-keeping in order to control ITT. Ambassador Danielsson pointed out that the transfer of all technology encompassed by the control lists is subject to control whether it is transferred by conventional means or as an ITT.

In concluding, Ambassador Danielsson emphasized that a crucial element of effective export control is to be adaptive to new developments in technology, markets and a changing security environment. This requires an ongoing review process that can never truly be completed but should be constantly ongoing.

The last presenter, Mr. Thierry Jacobs, Strategic Projects and Relation Executive of FN Herstal, made many suggestions regarding the possible definitions, scope and feasibility of technology transfer controls in an ATT. He opened by pointing out that the defence industry should be considered as a key actor in both an ATT's negotiations and in its implementation process, in order for the future Treaty to be applicable and acceptable to all parties. Mr. Jacobs

emphasized that in order for an ATT to be effective in regulating the arms industry, it would have to be above all two things: applicable and acceptable.

Applicability was described as the future Treaty's feasibility and capacity to be implemented. For this to be possible, the ATT prescriptions would have to be designed to be feasible from both a technical and a procedural point-of-view: not only must the provisions of the future Treaty be compatible with technical conditions of the arms industry, but they must also ensure that the whole process of manufacture, which involves the trading of parts from around the world, does not become over-regulated or overly complicated. Acceptability was to be understood as the future Treaty's ability to be fair and non-discriminatory. Mr. Jacobs emphasized that regulations under an ATT must be designed in a way that they do not penalize particular manufacturers or states, large or small.

Mr. Jacobs underlined that an ATT needs to include technology transfers, most of all to help stop the illegal production and trafficking of arms. Many manufacturers today are wary of selling their arms to certain buyers because they fear that their products will be reverse-engineered or illegally reproduced. This, as Mr. Jacobs explained, is not only a loss of the company's valuable product, but may also create new competitors on the market and could include confusions between licit parts made by the original manufacturer and illicit parts made by reverse-engineering. Considering this, there is an interest from the industry's point of view to improve on export controls of technology. He then went on to explain that the construction of a given weapon system typically includes both parts that are regulated and parts that are not. There are varying degrees of sensitivity attributed to different individual parts of a weapon. Jacobs demonstrated this by using an example, where he divided the 150 different parts of an FN Herstal rifle into unregulated commercial parts, components that are considered as weapon parts, and "critical parts". He described the critical parts as the "core business" of the manufacturer, which demand real technical expertise to produce and are essential to the production and maintenance of a weapon. By their virtue they are also the most valuable components of a weapon to a manufacturer, and usually the parts that most manufacturers produce by themselves and independently of third parties, in order to prevent the risk of creating new competitors and to keep the control of the manufacturing of critical parts. The different item categories that go into a rifle, for example, are subject to varying levels of regulation by different legislations.

As Mr. Jacobs showed, the process from production to arms transfer typically involves a range of different companies, states, components, contracts and regulations. Following from this, he argued that an international regulatory instrument such as the proposed ATT will need a clearly defined scope that does not become too broad and that is focused on the main objectives of the future ATT. With regard to the currently suggested definition of technology transfers, Mr. Jacobs pointed out the concern that it could be interpreted as an obligation to use a unified licensing process for all transactions between manufacturer and supplier, no matter which category of item is talked about. In his view, overly broad regulations would be impossible to employ, they would overburden governments, and would risk severely constraining the defence industry.

To address this problem, Mr. Jacobs suggested that a license process could take into account the different sensitivities of items and gather together all the transactions with a supplier of significant technology parts in a single relationship, in order to prevent the industries and governments from being overwhelmed by the administrative process resulting from having to license each part of the transaction separately. He further recommended that lessons be learned from existing regulations, and that all relevant parties be included in the discussion on the future ATT. Finally, Mr. Jacobs reemphasized the need for an ATT to be equally applicable and acceptable for all manufacturers and all states, and that it must be easily implemented and monitored.

## Discussion

The presentations were followed by a question-and-answer session, where many points raised by the speakers were further highlighted by comments from the floor. Participants wanted to know, for instance, what the panellists thought about the current definition of technology in the chairman's ATT non-paper, and whether the treaty should adopt a broad, general definition of technology transfers or if it should adopt a more specific, list-oriented approach. The panel was also asked to elaborate on the possible advantages or disadvantages of these two approaches. The presenters gave different viewpoints on the question about definitions: it was argued that a broad definition should be used, but it was also emphasized that this would require a careful discussion on implementation. It was argued that a broad definition would more easily reach consensus and also that it would be easier to implement, since an ATT would have to adequately control a wide range of weapon types, parts and technologies in very different contexts. On the other hand, a warning was made against too wide or vague definitions of technology, as they may lead the Treaty obligations to become ambiguous, which in turn may lead to ineffective implementation. It was suggested that an ATT should make use of technical experts in order to determine what kinds of technologies should be included or excluded, and also to assist states in implementing the export controls. Generally, it was emphasized that export controls are not static, but need to change with technological developments and within different political contexts.

Some discussion was also raised about reverse-engineering. It was pointed out that the replication of sensitive technologies is a major issue in some parts of the world, and a call was made that an ATT should allow for the implementation of differentiated thresholds of sensitivity for different technologies and parts. For example, in terms of SALW, certain parts are crucial to the operation of a weapon system, such as a barrel, and they should be a critical element of export controls. Also in this regard, it was suggested that the ATT process should involve technical experts to determine what items should be considered as critical, and that the industry should be an important part of the discussions because of their specialized knowledge.

It was suggested that an ATT could use the definition "specifically designed for military use" to refer to critical parts and components. It was however pointed out that this approach has been attempted before, but that it poses a challenge. It was argued that the kinds of items that may be considered as designed for military use may extend to individual bolts and screws, and that an attempt to regulate all of these items may overburden authorities and seriously damage the defence industry. In order to prevent this, an effective instrument would have to narrow down the range of items to be controlled. It was argued that the best authority for determining which parts should be considered as critical is the industry, and that together with licensing authorities as well as importers, these actors could form a panel to assess which items are to be considered as sensitive.

Specifically on the Wassenaar Arrangement, a question was posed regarding transparency measures in the context of a denial of transfer: whether an importing Arrangement participating state has the power to investigate and challenge such a decision and, if so, which mechanisms the Arrangement employs fairly address the issue. Another question addressed the definition of "transfers" in the Arrangement and whether they include also imports. Some participants also wanted to know whether the presenters could foresee an ATT adopting similar control mechanisms on a global scale that are currently in place within the Wassenaar Arrangement.

Addressing these questions, it was explained that the exchange of information on transfers and their denial in the Wassenaar Arrangement is carried out confidentially among the participating states on a voluntary basis. In the process of information exchange, participating states have the opportunity to put forth questions as well as other measures. However, in any case all information exchanges remain internal to the Arrangement and are not publicly

available. This, among other things, demonstrates the difference between the Arrangement and the proposed global ATT. It was highlighted that even though the Wassenaar Arrangement is not officially involved in the ATT process, it may still complement and support the future ATT. The panellists also confirmed that the Arrangement focuses on export controls and the exporters themselves, not on imports.

## **Conclusion**

The seminar organized by UNIDIR on technology transfers and how they could be effectively and usefully covered in an ATT evoked many positive comments from the audience, who welcomed this angle of discussion on the ATT process. All presenters were able to share their experiences and recommendations for an ATT based on their practical knowledge and experience in controlling technology transfers, and the discussion that followed clarified many points and addressed new aspects of the issues at hand.

Generally, all speakers stressed that the ATT discussions must continue working towards a comprehensive and efficient definition of technology transfers, as their inclusion in the future Treaty would be in many aspects important and also possible, as demonstrated by existing national and regional arrangements. In discussing the issue, it was stressed that some differentiation between different types of technology transfers must be introduced in the future Treaty to avoid an overly broad definition that would prove both ineffective and irrelevant from the point-of-view of sensitive controls and become impossible to implement because of the increased bureaucratic burden. In this, it was suggested that technology transfers could be addressed as an activity falling under the scope of the future Treaty rather than a type of weapon/equipment. The most recent Chair's draft paper covers technologies under both weapons and activities. Limiting the transfer of technology as an activity might help avoid situations where all the multiple acts of "technology transfer" related to a single contract would under an ATT risk being subject to multiple licensing requirements and allow for the issuance of a single comprehensive technology transfer license. Finally, the establishment of some kind of technical working groups composed of experts from the defence industry and national export control regimes was suggested as a possibly fruitful way forward in pinning down the most productive and implementable definition of technology transfers in an ATT.

# **Towards a Practical and Implementable Arms Trade Treaty: Addressing Technology Transfers**

**14 November 2011, 15:00–18:00  
Room VIII, Palais des Nations, Geneva**

**15:00–15:10 *Welcoming remarks***

Dr. Christiane Agboton-Johnson, UNIDIR

**15:10–15:20 *Opening remarks***

Amb. Hannu Himanen, Permanent Mission of Finland to the United Nations, Geneva

## **Session I: Issues and perspectives**

**15:20–15:40 *Technology transfers and the ATT***

Mr. Bruno Gruselle, Fondation pour la recherche stratégique

**15.45–16:05 *Defence industry and technology transfers***

Ms. Sissel Solum, Senior Vice President, Communications, NAMMO

**16:05–16:40 *Discussion***

## **Session II: Addressing technology transfers: some examples**

**16:40–17:00 *Views regarding small arms and technology transfers***

Mr. Thierry Jacobs, FN Herstal, Belgium

**17:00–17:20 *Controlling technology transfers in the Wassenaar Arrangement***

Amb. Sune Danielsson, Head of Wassenaar Secretariat

**17:20–17:50 *Questions and discussion***

**17:50–18:00 *Closing remarks***