

# The threat of non-state actors - responding to CBRN events

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EU Non-Proliferation and Disarmament Conference 2016 Special Session 3  
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Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non-Proliferation Consortium

Good afternoon, everybody. Welcome to 'Special Session 3: The Threat of Non-State Actors - Responding to CBRN Events'. I am Giorgio Franceschini from the Peace Research Institute Frankfurt and I am the current Chair of the EU Non-Proliferation Consortium. I have the honour to chair this session and I would like to introduce briefly our speakers. We will start with Paula Vanninen from the Finnish Institute for Verification of the Chemical Weapons Convention, who will give a presentation on chemical security, chemical terrorism. Tom Bielefeld will deliver a presentation on nuclear and radiological security. Our third speaker is Sarah Shirazyan, who will give a talk about the role of international law in combatting civilian terrorism, especially UN Security Council Resolution 1540. We will conclude with Dr Adil Sultan, Director, Research and Analysis, of the Strategic Plans Division in Pakistan, who will give us an overview on chemical, biological, radiological and nuclear (CBRN) security with a special emphasis on nuclear.

I should say again that this session will be audio recorded and everything that is said will be available on the web. During the Q&A, I will kindly ask you to speak into a microphone if you have a question and to identify yourself.

Without further ado, I will give the floor to Paula Vanninen. I kindly ask all speakers not to exceed ten minutes and if you speak for five minutes I will be very happy. Paula, the floor is yours.

Paula Vanninen, Director, Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN), University of Helsinki

Ladies and gentlemen, I am very grateful to the organisers for the invitation and I will give you an overview of how I see the threat of chemicals and especially how they can be utilised in CBRN threats and basically how we could prevent that.

I run VERIFIN, which is a national authority defined by the Chemical Weapons Convention and we work under the Ministry for Foreign Affairs, Finland. We are also a designated laboratory of the Organisation for the Prohibition of Chemical Weapons (OPCW) and we have real-time readiness for chemical weapons-related verification analysis. Therefore, I think that I have at least my own opinions to express to you.

The Chemical Weapons Convention is mainly thought to be a disarmament convention targeted to destroy existing stockpiles and the prevention of new production of chemical weapons. However, its Article VI provides a legal framework and operative mechanism for state parties to control toxic chemicals and their precursors and facilities that produce them. In particular, it defines that each state party shall adopt the necessary measures to ensure that toxic chemicals and their precursors are only developed, produced, otherwise acquired, retained, transferred or used within its territory and in any other places under its jurisdiction or control for purposes not prohibited under the Chemical Weapons Convention. This is a very broad obligation, which goes beyond the requirements of current verification regimes to be put in place for all toxic chemicals and their precursors. This means legislative, administrative and other measures. For instance, we have seen that the Chemical Weapons Convention and its Article VI represents the contribution of state parties' efforts to prevent chemical terrorism.

Turning to the national level and how the prevention of the use of toxic chemicals could be realised and how to minimise the effects of chemical terrorism if it happens. First, legislation must be in place. Terrorism must be criminalised. Then the most important thing is to restrict the trade of chemicals. Import and export controls should be in place. For example, there might be people who do not agree with me, but the Australia Group restrictions might be efficiently utilised. Another important thing is the end user certificate; that everybody who sells chemicals knows in what way those chemicals are used. There should also be improved awareness of risks related to certain chemicals, like currently used sarin, mustard gas and chloride, because it has been shown that these are very easy to acquire and use, so nations should start to look for these chemicals. There are other groups of chemicals that should also be monitored, other central nervous system stimulating chemicals that can be used by non-state actors (NSA).

What does this mean in practice? It means that industry and trade must be engaged and made aware of these issues, but how to do this is a more valuable question. It can be done via national authorities or by industry associations and I would like to hear your opinions about this issue. There should be improved monitoring of facilities that produce other toxic chemicals which fall below the threshold of the grade of organic chemicals that are defined by the Chemical Weapons Convention, and to increase the awareness of these facilities on security and safety issues. In many big European industries, these things are in place, but there are many places in the world that need more education on these matters and I would like to ask should national declaration requirements be more detailed and have lower thresholds at a national level than the international level?

Another important thing is to create national strategies for counter-terrorism (CT) related to CBRN events. This means close collaboration with authorities at the national level, who should know each other. When something has happened, it is too late to try to do some collaboration. You also need to have resources, human and technology, communication control units, including detection equipment, tools for decontamination and any others you can name. There should be a strategy to include training of first responders and other authorities involved to recover as soon as possible from the CBRN terrorism-related incident. This is very easy to say and much more complicated to put in place in each country with different types of authorities. I would like to emphasise the need for laboratory networks for CBRN capacity and capability. These should be established and there should be collaboration with other authorities. As the partner from a designated laboratory, these laboratories should be utilised in this type of incident. I would like to hear from you what other types of tools should be monitored.

Turning to the European Union strategy, again this would be a collaboration within authorities at the European Union level, but it should go also to the people who are working in the field, not only at a high level. We should give training, but we should think to whom. There should be, again, a European Union laboratory network for CBRN capacity and capability and again I would promote the use of OPCW designated laboratories for rapid identification of toxic chemicals, but also I would like to emphasise the network for biological toxins; we do not have a proper laboratory network for this type of event. We should develop and test the use of new

technologies in CBRN events, like autonomous unmanned vehicles. In earlier talks, these were thought to be used for bad things, but they can also be used to recover from incidents. We should study new detection technologies and improved counter-measures for victims. This is very important and for most diplomats it might sound very far away thinking, but it is, in practice, what is needed in the field. We need to develop and test toolboxes for CBRN events and already at EU level there are many projects, like End-user driven DEmo for cbrNe (EDEN) and Generic Integrated Forensic Toolbox (GIFT), which are dealing with this issue. They have shown very clearly that there is a real need and demand for this type of protocol and this could be also be used by international organisations.

Lastly, I would like to remind that this should be already in place in each state party of the Chemical Weapons Convention and also the strategy in the EU, but in my opinion it is not really there. National and EU level policies and strategies need to be confirmed and thereafter we need, soon, practical and trained approaches to this issue. We should be ready, but we are not and I hope we can do this better in the future.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you, Paula Vanninen. You have given us quite some food for thought on how to improve chemical security and what the EU can do to prevent chemical terrorism. We move now to the field of nuclear and radiological terrorism, where we have an expert, Dr Tom Bielefeld, an independent consultant from Germany and an expert on nuclear and radiological security and nuclear and radiological terrorism. Let us hear from Tom what his threat assessment is and what the EU and the global community could do mitigate these threats.

Tom Bielefeld, Independent Consultant on Nuclear Security

Thank you, Giorgio. Good afternoon, everybody. First, I would like to thank you and the other organisers of the conference for the invitation. I am very happy to be here. My remarks will focus, like you said, on the letters R and N in CBRN terrorism, so radiological and nuclear. More specifically, I will restrict myself to the threat of weaponised radioactive materials, so-called 'dirty bombs' by some, and to nuclear reactor sabotage. I will not talk about improvised nuclear devices, not because I think it is irrelevant, quite the contrary, but because of time restraints.

For my remaining nine or so minutes, I would like to touch on three issues. The first one, based on what has happened in the past three years, especially with respect to jihadist groups and especially with respect to so-called Islamic State (IS), what, if anything, new can we say about the evolving threat of radio and nuclear terrorism? Secondly, closely related to the first point but more broadly speaking, it has become quite obvious again that there is a problem with radioactive materials and nuclear facilities when these are located in regions affected by armed conflict. Thirdly, there remains the persistent problem, speaking from a European perspective, with the security of radioactive materials and nuclear facilities in the potential target countries of the attacks themselves, that is, here at home, despite the many very useful efforts to improve nuclear security signs in the past decade and after 9/11. As I said, regulations have certainly improved substantially, but establishing a security culture remains a very difficult problem, especially in industrial and medical facilities in which radioactive materials are used. One issue that has not received the attention it requires, in my opinion, is that of the insider threat and that is a very difficult problem to tackle. Even more difficult and even less attended to is the problem of the coerced insider. These are the issues I will briefly talk about.

The first one is the evolving threat, what can we say, if anything, new about jihadist capabilities and intentions? I base my analysis on publicly accessible information only. The activities and attacks of IS and others in Syria, Iraq and in Europe in recent years have, sadly, provided us with a somewhat better insight into the organisational and technical capabilities of this organisation and its operatives. There is still a lot we do not know, but there is certain text evidence in the conventional field and the organisational skills displayed in the context of the Paris attacks and, later, the attacks in Brussels, which appear to be sufficient to organise at least a dirty bomb attack. We have not seen evidence of deeper knowledge in radioactive materials, but what we have seen, for instance, is that there are people joining the organisation who have qualifications in chemistry and physics. These things are documented, so we cannot discount this group as technically or scientifically incompetent to begin with.

What we still do not understand very well is the intent, especially of IS and of other jihadist organisations at this point to attempt such attacks in Europe. There have been several episodes, which have been reported in the media over the past three years, from the seizure of liquid radioactive waste at Mosul University two years ago, when IS first entered the city, to the so-called 'laptop of doom' that was found by a journalist in Syria, to various calls by lower level operatives to, for instance, look at nuclear weapon storage sites elsewhere in Europe and calls to other IS operatives and sympathisers to see if there is anything one can do in terms of attack. However, none of these data points, if I can call them that, really amounted to convincing evidence of intent from the top of the organisation. With the one exception, in my opinion at least, which really got me thinking and that is the surveillance video found by one of the people involved in the Belgium attacks of the house of a nuclear official here in Belgium. We can expect that there will be more evidence, perhaps even more public evidence, when Mosul or other places are taken back from IS and we will see then what we can say and learn from that.

What makes the whole question of IS intent and, generally, the whole threat assessment even more puzzling is the claim by Australia's defence minister last year that IS operatives have already seized, in research institutes and hospitals, materials that can be used in such attacks. This is something she said in public interview and, from an analytical point of view, this is certainly plausible. I will just leave that there.

This brings me to the second point, namely what happens generally with vulnerable radioactive materials, nuclear facilities in terms of armed conflict. It is not a new issue but a pressing one, given that we not only have a situation in Syria and Iraq but also in Ukraine. On Ukraine, I found out late last night that there is a new paper by this Consortium, which precisely considers this question. I have not managed to read it fully, but it looks very promising.

I see I am running out of time, so the last point that I will briefly touch upon is the nuclear security in potential target countries in Europe. As I said, lots of things have been achieved since 2003, but very difficult things remain to be done and one of them is the very abstract notion, but very important one, of establishing a security culture, which you cannot quite regulate. That is something we really have to work on and it is very difficult. The other thing, again referring to IS and jihadist phenomena observed in the past two or three years, is the comparably fast period of radicalisation. We have a study from the German security services published last year that basically looked at the biographies of a couple of hundred people who they knew went, at some point, to Syria in the past two or three years. Of 300-something of those people, they have enough information that they can pinpoint the time from which it was recognisable to the outside world that there was radicalisation going on to the time of travel into Syria. This time was less than a year for, roughly, half of the 300 people and for a quarter it was less than six months. For security services or other people familiar with potential terrorists, to recognise that there is radicalisation going on is not easy and this, again, is something that is very difficult in the context of insider threats. Background checks, which have time windows of five years in some countries, a bit shorter in other countries, will not catch these radicalisation periods, it is just impossible, so we have to find other ways and I can discuss that in the Q&A.

Let me very quickly touch upon the coerced insider, which is, of course, motivated by a video. Of course, we have no idea, at least I have no idea, some people in this country might have an idea but they do not tell me, what the purpose was of this surveillance video. This is an ongoing investigation of which there is nothing in the news, but we know, not only from other areas of crime but also from the nuclear field in the early 1980s, many people do not quite remember that things have happened along the lines of capturing people who have access to nuclear facilities, who have access to weapons-related information and trying to force them, by threatening the family or something, to provide access to such facilities or to assist in the construction of a nuclear device. Belgium has responded to the terrorist threat in the nuclear field by introducing armed forces at the facilities. Sweden has made a similar move for its nuclear power plants. Spain has fielded a Guardia Civil force at each site, supporting the previously only lightly armed forces that were there. Many facilities in the world do have armed guards at the sites, but not all and this is an important point not only for physical protection of these facilities in general, but also to quickly deal with insider threats. There are still some places that rely on outside police assistance if something happens and this needs to change quite quickly at least in Europe and, hopefully, elsewhere. With that, I will close.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you, Tom. What I like about this panel is that it shows how interdisciplinary the challenge of controlling CBRN threats is. Dr Vanninen has a background in chemistry, Tom has a PhD in physics and now our next speaker, Sarah Shirazyan, is just pursuing her PhD in law – or you have done it already. After hearing the contributions of chemistry and physics to mitigate CBRN threats, we shift now to the field of international law, especially UN Security Council Resolution 1540, to see what international law can do to reduce CBRN threats globally. Sarah, the floor is yours.

Sarah Shirazyan, Doctor of Juridical Science Candidate, Stanford Law School

Good afternoon, everyone. Thank you for that kind introduction. I have just defended my thesis, so the good news is I have finished; it has been a long process, but let us not talk about it today.

Back in 2003, with the revelation of a nuclear black market, the world faced the reality that there were potential sources from which terrorists could access what we know they wanted the most: nuclear material.

Unfortunately, over the past years we have seen that terrorism is growing like cancer and, as Tom has very interestingly described, the violent groups such as ISIS are becoming increasingly lethal capabilities. I do not know if you had a chance to look, but last week there was a report from the Centre for Combatting Terrorism at West Point Military Academy, where they illustrated how terrorist groups are looking to experiment with drone technology and to deploy it to bring chemical and biological agents. I urge you to read the report, it is pretty interesting.

As we have discussed in the morning, these issues require a multilateral and coordinated approach and that is why, as you said, I am going to talk about the role international institutions play in preventing non-state actor proliferation and my remarks will be mainly focused on UN Security Council Resolution 1540.

For those of you who are not aware of the resolution, it is a Chapter VII resolution that was passed in 2004 and it mandated legally binding obligations on all UN member states. In particular, what it requires is to criminalise domestically proliferation activities. That has to do with WMD, and I am glad that Paula mentioned about terrorism and how important it is that countries domestically criminalise these activities. More generally, it requires countries to have four types of domestic controls and legislation to combat WMD proliferation activities. These are: physical protection; the securing and accountability of the materials; law and border enforcement, including combatting illicit brokering; and transshipment and export. Countries are required to submit national implementation reports to the 1540 Committee, identifying what steps they have taken or intend to take to implement the resolution.

As any international institution trying to deal with such a big problem as WMD counter-proliferation, especially as regards to non-state actors, they always face some sort of legitimacy challenge. We have heard this morning that we are seeing this kind of divide also with the ban on the Nuclear Weapons Convention and the same sort of path as Security Council 1540 experienced. In the beginning, it had a rocky start and there were issues related to the procedure in which the resolution was introduced, because it was under Chapter VII, not multilateral treaty negotiations. Most interestingly, a number of countries in the global south were not happy with the resolution because they thought this was not something within their national interest and terrorism, especially CBRNE terrorism, was not a priority on their national agenda, so they refused to be involved in implementing it, at least in the beginning.

When the 1540 Committee and its group of experts started their work, they were very entrepreneurial and the committee did not become a sanctions committee, either in the name of counter-proliferation or counter-terrorism. It identified itself as a committee that works collaboratively, so it is not assessing or sanctioning anyone. Furthermore, the committee and the group of experts have engaged in targeted marketing activities and outreach activities, trying to explain the threat, trying to raise awareness about the threat. They also tried to market and introduce the resolution as a way in which poorer countries can tap into the Security Council 1540 assistance mechanism to bridge the divide between development goals and security goals.

This strategy has been successful and now we see 176 countries that have submitted national implementation reports. There have been at least 14 country visits where the committee members visited countries and sat down with the national implementers. There have also been 24 national implementation action plans, where

countries outline what their domestic priorities are in implementing this resolution. Some countries, for example, South Africa, and some regions, for example, the Caribbean, have taken local ownership of the resolution and pushed forward the agenda domestically.

Even though there are these success stories, I must also say that there have been some challenges and there is a lot of work to be done. Most particularly, a number of the reports do not indicate that the resolution has been implemented universally and do not necessarily talk about the preparedness of the countries to combat this kind of threat. In fact, if you look at the reports, some of them might be incomplete. National reports might be complete, but might reveal major gaps in legislative frameworks and operational practices. National reports might contain false, inaccurate or outdated information. They might focus only on countries' legislative provisions and institutional structures, but fail to provide any information on how states' non-proliferation controls work in practice. Furthermore, national reports may only contain reference to WMD treaty regimes as proof of adherence to the resolution without providing any indication of domestic, legal or enforcement measures taken to address non-state actor proliferation.

I would like to end on a more positive note. I believe that there have been some very good success stories, for example, the Caribbean region, where there was more of a whole-government approach, where you see civil society cooperating with the UN and where there is buy-in of the host country. It is very important to secure the buy-in of the host country, especially for those countries that do not have WMD capabilities and that do not understand the threat of transshipment or having import and export controls. It is important to frame the question in terms of what is important in specific countries. For example, in the Caribbean it evolved around maritime security and tourism and framed the issues to build the national interest. It is important to also work closely with civil society. The UN alone cannot do all the work, especially even with the reports, so it is very important to work with universities and try to push the agenda forward.

I am going to stop here and we can open it up in the discussion.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you, Sarah. Our last speaker is Air Commodore Adil Sultan, who is the Director of Arms Control and Disarmament Affairs of the Strategic Plans Division in Rawalpindi, Pakistan. Dr Sultan, the floor is yours and then we will start our discussion.

Adil Sultan, Director, Research and Analysis, Strategic Plans Division, Pakistan

Thank you, chair. First, I am not here in my military capacity, I am here as an academic, so this rank of Air Commodore should not give a false perception that I am going to somehow project my military perspective. So, keeping my uniform aside, I will try to be an academic.

Thanks to the organisers for inviting me and especially Mark, who has been a good friend for giving me this opportunity, although he only gave me 48 hours to get to Brussels and speak on this topic, but since it is a topic of my interest, thank you, Mark, for this.

Connecting with the discussions that happened in the morning, the entrusting smokers analogy, there was talk about dedicated and less dedicated smokers, but there was no talk about the passive smokers, who continue to enjoy smoking without spending a penny on the cigarettes. I am talking about those who enjoy the nuclear umbrella. Once I connect it with the CBRN, this is the entire spectrum of drugs. We were only talking about cigarettes this morning, but CBRN is the entire spectrum of drugs, so is it possible to have a single solution for CBRN threats? Unlikely, but there could be a possible agreement that this remains a national responsibility. The security of WMD-related material and technology remains a national responsibility and you encourage states to take appropriate measures on that.

Another important issue that came out in the morning was about cyber security. I have just referenced CBRN, but probably now we should call it CCBRN, because cyber should also be included or C-squared BRN or whatever, because the arms control people are generally fascinated with abbreviations. This is an important area that must be looked into formally.

In my presentation, I will briefly highlight the desired elements of a national security regime that each country should have and give a general overview of the international instruments that are available currently to deal with CBRN threats. Primarily, I will focus on nuclear and radiological threats, because the chemical side has been extensively covered.

How do we define non-state actors? According to the definition, which my colleague also mentioned, in 1540, non-state actors are defined as an individual or entity not acting under the lawful authority of any state in conducting activities. This definition goes beyond the commonly understood concept of non-state actors that focuses on terrorists or, as my colleague mentioned, jihadists, but I would be very careful in categorising these terrorists as jihadists, because once you talk about jihadists you are associating terrorists with a specific religion and I do not think this problem is associated with a specific religion. It is a global phenomenon. Terrorists do not have a religion, so we should be very careful about using these terms, because if you want all the countries to participate in international measures, one has to be very careful in choosing the terminology. Incidents have happened in Japan – the sarin attack – and biological and other incidents have been reported that were not based on religion or something of that sort, so we should be very careful about these things.

Keeping this in consideration, the efforts required to prevent non-state actors from acquiring WMD-related material or technology should not remain confined only to the physical security aspects, but other elements that can be considered by any state. This is essentially based on what the IAEA teaches us. The elements of a WMD security regime can include: a legal and legislative framework: the state should have domestic laws, how to penalise or prosecute the terrorist; the state should have a regulatory framework to avoid diversion from standard operating procedures; there should be institutions and organisations for the efficient and safe management of work. I am sure all the states that have nuclear capability have these things and there have to be systems and measures also for how to handle security issues and challenges. For example, in my country, we developed a nuclear emergency management system that is very comprehensive. That is not unique to Pakistan; other countries have also developed such measures, which are needed for any state that has WMD-related material for any purposes in the country. Last, most important is international cooperation, because you want to learn from the experiences of others and you should be sharing your own experience also. That is how we can develop collective solutions to a common problem.

How has this problem emerged? Post-9/11, there was increased focus on non-state actors with the possibility that these terrorists can indulge in WMD terrorism and especially focusing on nuclear terrorism. Several initiatives were launched in the United States, such as the Container Security Initiative (CSI), the [inaudible] Security Initiative, the Megaports Initiative. These were informal initiatives. They do not have international legality because they are not under international institutions, but these initiatives have helped create greater awareness amongst the international community and that is very useful.

Another important initiative is the Global Initiative to Combat Nuclear Terrorism (GICNT). That is the one example of international cooperation. It is a joint initiative by the US and Russia, focusing on nuclear and radiological terrorism or security issues. It has three subgroups: the Nuclear Detection Working Group (NDWG), the Nuclear Forensics Working Group (NFWG) and the Response and Mitigation Working Group (RMWG). Since there is no binding obligation upon states to participate in these activities, the voluntary nature of this initiative has been very useful in creating greater awareness and collaboration and cooperation among the international partners. This is one example.

I will not go into detail on the 1540, as my colleague has already talked about that, but there is a fundamental principle in this resolution that the security of WMD-related material and technology remains a national responsibility. It calls upon all states to refrain from providing any support to non-state actors, to strengthen national legal and administrative infrastructures, to develop effective physical protection measures and to develop comprehensive export controls. As has been mentioned, it is under Chapter VII and it is obligated for all member states to have these national controls, but these responsibilities are to be taken by the states themselves. There is also provision to offer assistance and for the states to seek assistance from the 1540 Committee report.

Another initiative that was also mentioned this morning is the Nuclear Security Summit (NSS) process. This was very important because it was the first leadership-level summit in which a significant number of countries with some expertise in WMD-related technology and material were called and this helped create awareness at the leadership level. This provided momentum at the bureaucratic level for organisations and international institutions to take on or be part of the NSS, so this is a fine example of international cooperation once you encourage states to engage voluntarily, without bringing any additional obligations. That was very important. Whatever was agreed at the NSS process, then there was talk about how to carry forward this process and now the IAEA has been identified as the principal stakeholder that has the expertise to at least implement some of the agenda items from the Summit related to nuclear and radiological security. However, there is a problem with the IAEA. The NSS agreed to things that dealt with the weapons programme that fall outside the purview of the IAEA mandate, such as disarmament. The IAEA is not supposed to deal with those issues, unless you want to make IAEA controversial. There was also talk about 'all material', which includes military material also. Those are some of the problem areas that we need to be very careful with, because if you bring out those controversial issues at the IAEA forum, the IAEA is going to be politicised, like several other international organisations and then there will be a problem and a reluctance by states to engage constructively with the IAEA.

To conclude, the threat of WMD terrorism cannot be ruled out. However, there are specific conventions on chemical and biological-related issues and most states have obligations under CWC and the Biological and Toxin Weapons Convention (BTWC). It falls upon states to fulfil their obligations under those conventions. Owing to the associated sensitivities, efforts to minimise the threat of WMD terrorism could bring better results if states are encouraged to improve their national measures instead of bringing new or additional obligations upon states. There is also a need to avoid duplication and to strengthen existing measures, because there is always a tendency to launch new initiatives and then there is the issue of resources, both human and financial. Not all states can afford to send their experts to each and every meeting and there is a degree of overlap as well, which is an issue. We need to bring synergy to the existing initiatives rather than launching new ones.

I will stop there. I will be more than happy to share my national experiences if you have questions on this issue. Thank you.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you, Dr Sultan. We have 45 minutes for discussion. We have a microphone circulating and I can see the first hands going up. Please identify yourself and maybe tell us to whom you direct your question. Thank you.

Dr Sitki Egeli, Visiting Scholar, Izmir University of Economics, Turkey

Mine is not directly a question, it is more something to steer the debate in a certain direction for the second round for the speakers to talk about. I have been lucky or unlucky enough to have been involved in a Track Two activity that is going on right now, addressing the problems of non-state actors in the context of especially chemical weapons but also biological weapons. I have done my part for Turkey in this case. Turkey is a country with fairly advanced export controls and industrial controls and is also a member of all possible export control or arms control or disarmament arrangements that are in place right now and has a long history of dealing with the problem. Nonetheless, what we have detected, alarmingly, is when you are dealing with non-state actors the measures covered by the Chemical Weapons Convention, by the Biological Weapons Convention are not prepared to deal with non-state actors. Let me elaborate on that, if you will allow me.

The main problem seems to be, yes, the responsibility belongs to the state and the state is trying to deal with the problem, but by the time state authorities become aware of some kind of issue it is too late. The substances are already missing, they are across the border or they have already reached the terrorist organisation and we have a smoking gun example, in 2013, when an al-Qaeda linked group was able to obtain certain precursors from Turkish small- and medium-sized enterprises. By the time this was discovered, it was not by the mechanisms devised by the Chemical Weapons Convention and all the inspections and other rules that are in place in Turkey, it was a tip-off to the police. The police were able to catch them before they could ship the substances to Syria from Turkey. You might think, okay, at least the intelligence worked, the police caught

them, very good. Well, those guys were taken to court. The special court structure, the judicial procedures, the laws were there, but the special, purpose built courts, the judges, the prosecutors were not in place, so the guys were set free and by the time the sentence came out they had all gone to Syria. From a deterrence point of view, therefore, the system has failed as well.

What we are faced with here is when you are dealing with non-state actors, you can forget everything about your existing Chemical Weapons Convention, Biological Weapons Convention or Australia Group arrangements that you may have in your countries, they do not work, because they are not tuned to non-state actors. That was a comment, not a question, sorry.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

No, it was a very good comment and we have panellists who will comment on that, but I will collect a few more statements and questions first.

Ali Rached, Policy Advisor, Counter-Terrorism (CBRNE), Interpol

Thank you very much and thanks to the panellists for excellent presentations. I have a few comments rather than questions, by panellist, if you will allow me.

Starting with the first panellist, Paula, excellent points. First, you talked about the importance of criminalising terrorism and it matches exactly our approach. By default, the organisation is forbidden by its constitution to get involved in anything of a political nature; it is the neutrality principle, pretty much. That is why when we deal with terrorism we obviously do not get into the dilemma of defining it, but rather dealing with the terrorist act and break it down to its very criminal, bottom line nature.

You mentioned the national CT CBRNE strategies and their importance. The good news is the organisation has been drafting its global counter-terrorism strategy. One essential stream is directed towards materials and weapons as, of course, a vector for terrorist acts, including CBRNE. There is an incredible focus on information and intelligence sharing amongst our member countries. We have been doing a lot of work on that, especially with regard to bomb makers and chemical precursors databases, but also cross-border operations. That leads me to the comment we have just heard about the terrorists and national laws level. There is an excellent example of Georgia, which has been doing tremendous work in consolidating its national frameworks and penal code to address issues like trafficking of materials specifically, with very long-term penalties. That is with regard to the first panellist.

Tom talked about IS capabilities versus intention, obviously a classic question. If I understood correctly, you said that on the capability maybe we have indicators even in the open media, of course, and that is what I am allowed to talk about here, but the intention was an open question, in a way, or more puzzling. I tend to disagree, based again on facts on the ground. Even if Baghdadi did not come out and say it is a religious duty, like Osama bin Laden did more than a decade ago, I believe – and it is not only limited to the RN side, but the whole CBRN spectrum – there are very clear indicators that they are way past the intention. The intention is definitely there and they move towards the action, chemical-wise, of course, biological attempts, but also rad/nuc and that is backed by facts on the ground, unfortunately. The new trend is that we do have capabilities on the rise and not just the intention, but the intention is, in a way, checked, unfortunately.

Sarah, 1540, excellent presentation and congratulations on the PhD. However, the most crucial point right now is the future of the 1540. You referred to the reports at a national level; there is the fancy matrix with a lot of reports in it, legislations, but then there are a lot of ongoing discussions right now about where the resolution is going and what kind of mandate it should take. Some attempts are trying to bring the resolution towards a counter-terrorism resolution. Obviously, we work intensively with the Committee on that and there is a clear role for organisations like law enforcement organisations within the interagency approach, of course, to be played in more effective prevention and response.

You also mentioned drones. There is a lot of attention being put on drones, it is definitely a trending threat and it is going to increase in the future, for obvious reasons: they are cheap, they are available, you do not have to go on the private, black market to access them. You mentioned dissemination as a delivery method. So far, the

indicators we are seeing are more focused on reconnaissance and intelligence rather than dissemination, due to technical limitations right now. Those will obviously evolve in the future, but so far, even IS, when they use drones in conflict zones are very much focused on reconnaissance and intelligence rather than dissemination. Again, that could change and there was one case in one country where they were used, in a way, as dissemination, but technically there are still a lot of limitations.

Dr Sultan mentioned the NSS and the IAEA mandate; I definitely agree with you on that point. Our relationship with the IAEA when it comes to nuclear terrorism prevention and response is very long, going before the NSS. We have had an MOU with them since 2005 and we believe very strongly in the complementarity of mandates, so that each organisation can be effective within their own mandate and framework. For example, whilst the IAEA has the Incident and Tracking Database (ITDB) and they look at the cases of illicit trafficking from a technical standpoint, we have the Geiger database, which takes the same incidents a step further in conducting criminal investigations and network analysis and the perpetrators are involved in the same cases. The action plan that came out for each international organisation from the last NSS obviously emphasised that vision of complementarity between the respective mandates of the four international entities of the NSS process. Thank you.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you. I will allow a third question, by my former colleague Bernd Kubbig if it is not too long.

Dr Bernd Kubbig, Project Director, PRIF/HSFK; Adjunct Professor, Goethe University

I will be brief, as always. Thank you, Giorgio, and thank you, panellists. When I entered this room, I thought that all the speakers would provide us with 'there is the snake, we cannot do everything and all snakes look alike'. However, if I put your remarks, which I liked very much, into a matrix, I would say there is a big difference between the various technologies from the radiological stuff to the nuclear stuff that should be differentiated and you have done accordingly. Secondly, this relates to the accessibility of terrorists to the various technologies and, if I am not wrong, I got the message that those with the least impact are the most accessible ones. This brings me to the question, which was also in your presentation, that time matters, short-term, mid-term and long-term perspectives, and this again relates to the broad spectrum of measures and counter-measures, ranging from diplomacy, preventive defence versus via coercive to military stuff, so it is not just related to the military. Putting this together, if I understood you correctly and tried to systematise it, there is room for diplomacy, there is room for preventing things and we do not need to look at the snake the way we have done from the Western side, as on the Russian or the Soviet threat. This is very important for your work.

The last point, if I have understood this correctly, is that the screws you would like to turn are, on one side, on the national level and, on the other, on the coordination level. These are two screws that again give us some promise for future work on the issue. Thank you.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you. I would now like to give our panellist the chance to react and please bear in mind that I already have four additional people on the list who would like to ask questions, so be brief in your reactions. Let us start in reverse order, with Dr Sultan.

Adil Sultan, Director, Research and Analysis, Strategic Plans Division, Pakistan

I do not have much to say, but I will just agree with the last comment. While we continue to state that security of WMD-related material and technology remains a national responsibility, there is also a need to bring synergy, collaboration and cooperation at the international level. Only then can you deal with this threat at the global level. Thank you for those comments.

Sarah Shirazyan, Doctor of Juridical Science Candidate, Stanford Law School

I am just going to briefly react to the first comment about the relationship between the domestic procedures and laws compared to the Chemical Weapons Convention. There is a slight tendency to expect that international law is going to solve all the problems. Unless it is internalised and there are domestic procedures in place, international law just gives a pretext or an umbrella upon which national responsibility should build. To speculate, exactly, 1540 was there to close the gaps between the Chemical Weapons Convention and non-state actors and the question would be to what extent countries have internalised the 1540 and its goals.

Ali, thank you so much for your great comments. There is a lot of discussion on the future of 1540 and, if you asked me, I would rather see more resources put into the 1540 and more possibility to give assessment and technical analysis capacity to the 1540 regime. That is more of a political question on what kind of discussion and outcomes there would be.

In terms of drones, I come from Silicon Valley, where technology defines the future and they really believe in technology. It is very important to have a dialogue between the regulators, policymakers, security analysts and the technology people, because if you look at what is going on in the Valley, what kind of technology, they think it is just technology and they think it opens up space. It is also important to educate the people who are creating this technology about what kind of design features they should have in the technology if we think that this technology might have some security threats.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you, Sarah. Tom, there was a remark by the gentleman from Interpol who challenged a little your assessment on the intention of ISIL to use radiological or nuclear weapons, so what is your take?

Tom Bielefeld, Independent Consultant on Nuclear Security

I think there was a misunderstanding, so I am grateful for the opportunity to clear that up. As an analyst who does not belong to a government, publicly communicating about risks and threats in radiological and nuclear, I have to be very careful. On the one hand, I communicate with the public via journalists, for instance, and I do not want to be seen as a scaremonger, so I have to be very careful what I base my assessment on. On the other hand, I also communicate with policymakers and practitioners like yourself and I want to make sure, from my point of view, that the threat is taken so seriously that there is action as a result. Communicating between these two audiences is always a bit tricky, so when I am too careful in a forum like this, I apparently get misunderstood. I have no intention to downplay anything.

With respect to especially radiological and nuclear, I have analysed all the publicly available material that I could get and for the particular group that I was referring to, there are very few clear spoken or expressed indicators in the public realm. Jihadists in general, al-Qaeda after 9/11 and before 9/11, there are very clear indicators that they were interested in obtaining some sort of a nuclear capability of whatever kind. They were at least thinking about that and were trying to acquire material on the black market. For IS, there is no such intelligence publicly available and that is what I said. I have been concerned for more than two years in terms of capacity and intention. The focal point, for me, when I started saying 'yes, I think there is a clear intention' was the video and that is not even terribly clear, but it is very difficult to find alternative explanations.

There is another misunderstanding, which is from Dr Sultan's side, which I would also like to address. I have a presentation here that I said focuses on what we have learned in the past two or three years from jihadist activities. If you give 90 minutes, I can walk you through all that is known in terms of terror plots in the radiological and nuclear field by Aum Shinrikyo, by right-wing radicals in the US and Europe. I totally agree that we have to keep an open mind as to where the threats might come from, especially with IS and that is an interesting point. When you look at the briefing that Clapper gave a couple of months before the fall of Mosul, of the threats he listed IS was not there, right, in late 2013. This organisation was not on the radar and suddenly it is on the radar. It is also on the radar as a possible CBRN threat. Aum Shinrikyo was not discovered for a very long time, so we do not know what kind of threats we will face in five years, ten years, 20 years, so all the preventive measures we have to take we have to take now with a sense of urgency, because all of these measures take a lot of time and we do not know what will happen in five years. Sometimes we do not know what will happen next year, right? One of the things that I try to promote is this increased sense of urgency.

Whatever we talk about, the process is started during a Nuclear Security Summit, all of them take a lot of time, many years. To establish a security culture takes a lot of time and we are now in a situation where we might still have a couple of years, but the threat will be with us for a very long time. At some point, it might materialise and so we had better prepare. That is the point.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you. Last but not least, Paula, there were at least two questions directed to you.

Paula Vanninen, Director, Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN), University of Helsinki

Yes, thank you. I will start with the first one. I really think that if somebody wants to do something harmful it will be possible, but there might be people who try to prevent it. As an optimistic person, there are tools that we can utilise. For example, the Chemical Weapons Convention is defined as a disarmament convention and says tonnes of chemical weapons must be destroyed. In addition, all the schedules of chemicals and the [inaudible] altering chemicals their thresholds are very high, because they are meant for the control of chemical weapons for mass destruction. If you are a terrorist, you fall out of these thresholds, but there are many companies that produce toxic chemicals and they are not controlled. So, in each country, when you have a national authority there is the possibility that you go beyond these thresholds and there is a possibility that national authorities or industry associations go further and start to think how these chemicals could be misused. Perhaps there is also one other type of [inaudible] now we can buy anything from the internet. You can just order it and it depends on your export controls how well these types of chemicals can be caught. Anyway, at the national level, you can go for the lower thresholds to check these types of companies if their security is in place.

The most important thing is awareness-raising in academia and industry. From my point of view, I have given training in many countries and also in developing countries and we have a common problem. Not only in developing countries but also in European laboratories, they are not very keen on keeping records on chemicals and so anybody can go there and steal anything and make little harm, but it is also possible on a bigger scale.

Turning to the drones, I am from a university and I am always on the side of advanced technology, but what we can do on this side is go for export controls and do awareness-raising, as you stated. The people who develop and deliver these types of things know a little bit where they will be used. Drones are only one way of spraying things around. There are very old sprayers in every farmhouse and so on, so if you want to do this type of harm it is totally possible. What we should do is control the trade and make people more aware. Even with this type of high-level political audience, I would remind that in every case the most important thing is how this goes back to the ground, how the people working at ground level know what to do and they have contacts and information on correct issues. It was raised today very clearly that people are not aware about these types of threats nowadays. It was 30 years ago when people were afraid of nuclear weapons and so on, but they are not really thinking about the issue at the moment. Some awareness should be raised without making people too afraid.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you, Paula. We have about 20 minutes to go and I have already six people on the list. I would propose to do the following. I will call on each of you, but kindly ask you to be brief and to ask one question and I ask the panellists to take notes, so that we have then a final round where you can address these questions. The first one on my list is Jean Pascal Zanders.

Dr Jean Pascal Zanders, Senior Research Associate, FRS

Thank you very much to all the panellists. I have a question specifically for Ms Shirazyan. Thank you for your presentation, your overview of 1540. One question that always intrigues me is which takes precedence over the other, 1540 or formal treaties such as the Chemical and the Biological Weapons Convention? The reason I ask

is, in both conventions but particularly the BTWC, whose review conference starts on Monday, there is a big challenge of developments in science and technology creating new sets of circumstances. In your mind, how can 1540 keep up with those changing circumstances to maintain the relevancy it has today? Thank you.

Dr Kai Ilchmann, Independent Consultant, Germany

Thank you very much for your presentations. My question evolved over the responses and mostly it has been answered by Tom's response just now by introducing complexity, because this was something I was missing, the complexity in this discussion. When we talk about this – and I am a little surprised – we had the title 'The Threat of Non-State Actors'. As Tom mentioned, it is not just about Islamic terrorism, it is not just about this and that. It is an amorphous threat. It is something that is quite uncertain where it comes from, so it is really in the second part of the title, it is in the response to CBRN events, already assuming that some might happen. It is about vulnerability in society and what I heard repeatedly was these things are a national prerogative, plans and all sorts of stuff. Yes, they are, of course they are, but what about international collaboration, assistance, vaccine sharing and all these things? If the panel could mention something about that, that would be great, thanks.

Dimitris Iliopoulos, Principal Advisor, Disarmament, Non-Proliferation and Arms Export Control, EU Representative to the OPCW, EEAS

I am the EU Representative to the Organisation for the Prohibition of Chemical Weapons (OPCW) in The Hague and I focus obviously on the chemical threats. I am very pleased with the discussion here, which I will encourage be reproduced in the Sub-Working Group on the Role of Non-State Actors that is taking place in the OPCW. It will be enriching, so if you have the possibility of proposing yourselves to participate there, I can definitely make a recommendation to the Technical Secretariat.

I will tell you where we stand as the EU, especially in view of the Russian initiative, which has very recently been presented in Geneva for a standalone international convention against chemical and biological terrorism, which is not irrelevant. On the contrary, it is very topical, but there is a debate whether this should be tackled in Geneva or elsewhere. We are closer to the position maintained by the OPCW itself that the CWC has all the ingredients, let us say, to tackle the NSA threat, especially vis-à-vis chemical threats. From our point of view, for instance, and it was mentioned and of course I stand by that, Article VII, which talks about national implementation of the convention, is key in tackling this, because then you have not only the legislation but also the mechanisms developed in the state parties to the convention, which will allow them to face these challenges. Of course, the problem is that Article VII has not been implemented by all state parties; there are 47 that have not put in place national legislation. As the EU, we are making significant contributions in tackling this by offering the OPCW the possibility to train them, so this is key. I also take the point made by Dr Sultan that international cooperation is very important in this respect, because then you have all the programmes of tutorship, help and assistance, which is crucial. 1540 is also key and this is mentioned in our position, which we are going to give in the conference of state parties in December.

The bottom line: national implementation, international cooperation, prevention. Thank you.

Veronika Stromsikova, Director of the Office of Strategy and Policy, OPCW

I am Director of the Office of Strategy and Policy at the OPCW in The Hague, so it is good that I follow Dimitris and I readily take up his suggestion that we bring over at least some of the speakers who would be willing to speak at our Sub-Working Group on Non-State Actors that we have established, where we have discussions going very much in a similar direction.

I asked for the floor because I was very interested in what Mr Bielefeld spoke of and that is the security culture. What you pointed to is that that is something you do not establish by adopting a law or issuing government decree, it is something that you need to foster over the years. That is a concern that we have as well at the OPCW and if you could elaborate more perhaps on your thoughts on how best to do that, because it is a challenging issue, I believe.

Whilst I have the floor, I would like to also thank Ms Vanninen for pointing out the importance of the national authorities of the Chemical Weapons Convention interacting with the wider CBRN authorities and community, which is not always the case and that also creates gaps at the national level.

I could have also reacted to the remark that neither CWC nor BWC are working properly, but Dr Sultan and other speakers have already responded that even the most perfect international instrument will not do the trick if you have slips in national implementation and, for example, in criminal prosecution procedures. That can always happen, of course, and I trust quite firmly that it is something for the national level to consider. Thank you.

Dr Richard Guthrie, Coordinating Editor, CBW Events

This reminds me very much of the briefings that were given when the Labour Party came into power in 1997 in the UK, because one of the first briefings on home affairs given was that as the economy is increasing there is going to be a rise in crime because there are going to be more things to steal. One of the participants, the incoming minister, said, 'Ah, but what happens if our economic forecasting is incorrect and the economy goes down?' and the answer from the officials was, 'Well, of course, more people will feel economically deprived, so crime will go up because people will be stealing things'. Essentially, in all cases, crime was going to go up. In reality, three years later, crime was going down.

We need to go back and double check to ourselves that we are not reflecting our own fears here. The use of things like poisons, disease have a very innate fear and there is this difficulty, we can project those fears and we encourage those activities inadvertently by constantly saying, 'These things are incredibly dangerous and these are what really scare us'. There are people out there who are thinking, 'We want to scare these people. Oh, that is how we scare them'. We have to be a little careful about how we describe this.

I am also fascinated by the return of bin Laden's suggestion of weapons of mass destruction as religious duty. The CIA used to like introducing their reports on that. I used to be a great letter writer. I wrote to the CIA saying, 'Very interesting. You say bin Laden made this proclamation that acquiring weapons of mass destruction is a religious duty; can you send me a copy, because I cannot find it?' To which they sent me an answer saying, 'We do not reveal our sources', to which I said to them, 'It is a proclamation, it cannot be a secret statement'. They gave no response, but they have never used it again. One has to look at these things. That is a very straightforward open source and if it is then misinterpreted regularly, we have to be very careful about what the rest of the information is that we have to interpret. Thank you.

Dr Rizwana Karim Abbasi, Assistant Professor, Department of Strategic Studies, National Defence University, Islamabad

Dr Sultan has very rightly pointed out how Resolution 1540 and the Nuclear Security Summit were significant forums that introduced international norms, a national security culture and mechanisms. However, as we understand, the threat is rapidly evolving, so we have to also focus on the mechanisms at national and international levels. We must evolve accordingly and we have to be fully vigilant in this regard. I picked up his point in regard to cyber security and thereby integrating an inclusion of similar perspectives. As we know, in the future environment, particularly in developing countries in the Asia Pacific region and the Asian continent, more and more states aspire to install and institute power plants and want to add more plants to their national grid. In that context, we have to then look at two particular aspects: number one, how we can initiate new plants and facilities that have the built-in capacity to address emerging threats such as cyber and CBRN. In relation to that, as Adil Sultan pointed out, whatever was the outcome of NSS can be given to the IAEA, but I was quite concerned about this, because the IAEA is heavily overloaded. Are we really in a position to give more burden to the IAEA? The burden should be shared at the national level by the states. That is of immediate concern and I would like to hear your response on this.

Speaker

Mine is not a question, but a comment. I have been working on this subject for some time and I believe that when you are dealing with the subject of severe threat, particularly nuclear threat, one has to make the distinction between becoming an alarmist or, for that matter, creative alarmist and stating the threat as it is.

The earlier gentleman talked about how when he asked for the source it was not presented to him, so these kinds of things need to be taken into consideration.

The second point is about the use of the word 'jihadist'. When we are using the word 'jihadist' I understand there is a religious angle to it, but it is just not a religious angle. If we want to respond to the threat of non-state actors, one way of neutralising the threat would be to stop using the word 'jihadist', because these non-state actors are trying to justify their actions by saying that they are doing this in the name of God and this is called jihad. The whole concept of jihad is very different. If we are using the term 'jihadist' in the context of these non-state actors who are nothing but terrorists, a terrorist is a terrorist. There is nothing jihad or jihadist about them, so if we are affording this word of 'jihadist' to them, we are, in some sense, making them successful in their activity of imposing a very big cost, because that is the rationale of terrorism: you want to impose a huge cost on your target and coerce them into doing things that they do not want to do. My suggestion is there should be a change in the literature where there should be a stoppage of the word 'jihadist' when it comes to non-state actors.

Antoine Levesques, Research Associate for South Asia, IISS

My question is for Adil Sultan, but also for others on the panel. Adil, you referred to the concept of CCBRN, introducing the cyber element. Since this conversation is about non-state actors, I wonder whether your insertion of cyber was based on a particular threat assessment of non-state actors in relation to the cyber domain. Thank you.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

Thank you. We have a lot of food for thought. We will start with you, Paula Vanninen and I ask each of you to be very brief, because in about five minutes we should close, so just pick maybe the most salient questions you heard to comment on.

Paula Vanninen, Director, Finnish Institute for Verification of the Chemical Weapons Convention (VERIFIN), University of Helsinki

We did not talk very much about international collaboration and I think the OPCW has the kind of system where all national authorities can inform what type of equipment and tools they have for assistance and protection for other countries. This is something that nations should consider more critically. In addition, OPCW have now introduced a new mechanism called something like the rapid response monitoring unit, which means that any country that needs help or advice can ask for that from the OPCW. I know that there are many other issues where international collaboration is done with assistance and protection.

Tom Bielefeld, Independent Consultant on Nuclear Security

There are so many issues, it is quite difficult to pick just one. The key that we have mentioned several times is security culture that is based on an awareness that there might be a threat to certain materials, facilities or processes, so security awareness really is key. I will not address that in much detail, but in order to get a connection to 1540, there is a key role also to play for non-government experts, academics and professional societies. 1540 and the follow up resolution, 1977, are very good in that they explicitly call for the involvement of civil society, including outside expertise and this is something where we should be working.

In terms of complexity-sharing and international collaborations, that is really too difficult to answer in a minute or so, but something I would propose – it is a small thing that is nevertheless very expensive – to address the problem of radioactive materials in areas of conflict is to bolster border controls with new technology. I have always been a bit critical about that, because in the nuclear field they are not very effective when it comes to uranium, for instance, but for radioactive materials they can play a bigger role. A big problem in that regard, of course, is that you have to train the border control officers to be very vigilant. The security culture has a lot of facets and many different audiences. You have border control officers who need to be trained differently from nuclear facilities operators, from hospital workers and so it is really a big issue.

On the Osama bin Laden statement from 1999, I looked that up again and read it very carefully and it is funny, in a way, because it is really a statement of deterrence, right? We want to have such materials so that others cannot do us harm. It is not a proactive statement, but rather one where, very simplified, he thinks in terms of deterrence. The actions that his organisation had conducted, according to what intelligence agencies have published in the meantime, speak a slightly different language and I cannot go into that, but I just would like to point out that he is not the only terrorist who thinks about nuclear capabilities in terms of deterrence. Interestingly, there are others, including the just deceased German former terrorist from the 1970s, who was interviewed in the late 1970s and people were asking him, 'Would you like a nuclear weapon?' and he said, 'Yes, because that is a good way to blackmail politicians into doing this and that'. That was Bommi Baumann, the former anarchist. He was one of the few terrorists who talked in public about nuclear terrorism at the time. If you compare different types of wannabe nuclear terrorists and how they think, it is quite interesting, but I cannot go into that at this point.

The final question I have is about what word I should use to distinguish terrorists who refer to their particular religion as justification for their cause as opposed to anarchists or others. 'Jihadist' is not something you want to be used, so what other should be? For analytical purposes, you have to make distinctions between different types and groups of terrorists.

Speaker

There is a book by William Potter, *The Four Faces of Nuclear Terrorism* where he has categorised terrorism. [Inaudible]

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

This discussion goes a little bit beyond the scope of this conference, which is a non-proliferation and disarmament conference and not a terrorism study conference, but feel free to continue this discussion in the coffee break. Sarah and Dr Sultan still have their final words.

Sarah Shirazyan, Doctor of Juridical Science Candidate, Stanford Law School

Thank you. I am going to be brief and address the question of the 1540 vis-à-vis other international instruments, such as the Chemical Weapons Convention or the Biological Weapons Convention. From a legal point of view, as a lawyer looking at the convention, theoretically speaking, there is no idea that the CWC gets priority over the 1540, in terms of source of the law they are all binding. More practically speaking, the question is how a respective country wants to frame or position itself. This is because the CWC and all the arms control conventions have been multilaterally negotiated, so there is a question of consent versus 1540, which has been through the Security Council and 15 countries voted for it, so there is always this backlash of 'I did not really vote for it and I did not really have a say in it'. From a practical point of view, therefore, that could be an issue. However, as a lawyer, looking at the source, the 1540 resolution has recognised that some countries have already made other legally binding obligations, so it made sure that there is no contradiction.

In terms of the forward-looking agenda and science and technology, the good news about 1540 is it is pretty flexible, so the question becomes would the Committee decide to make it a priority and they have already recognised the importance of science and technology. This also ties in to Ali's comments about the future of 1540. Depending on what kind of future it has, it might want to have some sort of technology scientist on the board or have some cooperation or dialogue with the science community.

Adil Sultan, Director, Research and Analysis, Strategic Plans Division, Pakistan

Thank you. I have the final word, which means I can say whatever I feel like saying. Thank you for all the comments. First, addressing the question by Antoine, cyber is probably a more serious challenge than even CBRN, because when you talk about CBRN the material and facilities are in the geographical proximity of any state. In terms of cyber, the non-state actors can create a situation whilst sitting in a different geographical location and targeting a different country, so there would be a problem. You probably cannot hold a country responsible for that, but in the CBRN, at least once you say it is a national responsibility, you can hold states

accountable for their actions or lack of actions that led to that incident. In cyber that is a problem. Since it is a new field the GGE working in the United Nations are developing thoughts about this, but as I see it, it is more problematic than what we are generally used to with CBRN.

On nuclear terrorism, I agree with the comments from the colleague sitting in the front row that we, as analysts, at least, because we are not from the profession of journalism, which thrives on creative alarmism, meaning the headline is 'Possibility of nuclear terrorism by non-state actors or a certain group'. That is why we continue to follow the news, but as analysts, we need to be very clear, as I am sure most of the people here are. When you talk about nuclear terrorism, is there the possibility that a non-state actor can gain access to a nuclear weapon and might use it? I say it is quite impossible. You cannot completely rule it out, but even if non-state actors gain access to a nuclear weapon, can they use it? All the nuclear weapon states have standard protocols. They are not like a normal bomb that anybody can get hold of and use. While we continue to use the threat of nuclear terrorism, yes, non-state actors can get access to nuclear material, probably they can use it for a dirty bomb and for radiological dispersal devices (RDD), that is a more likely scenario for which we should be preparing, but most of the time the debate gets focused on nuclear terrorism and the possibility of suitcase bombs or terrorists getting those bombs and using them against other states. I am not saying that is completely impossible, but the more likely scenario is the RDD or the dirty bomb scenario.

There was a comment about resolutions versus treaties. As we see the nature of international relations and how the international community is structured, states are sovereign entities. You do not expect that somebody will start pushing the states and states would agree to that. If you want states to collaborate or cooperate at the international level, you have to resort to the principle of inclusiveness and volunteerism. The NSS was one example in which you were able to draw so many conclusions or consensus communicate outcome documents because you were not pushing the states. That is the problem. What is happening that a few states decide that 'this is a threat and we need to develop something' and then they start demanding from the other states. That is why our treaties or agreements are not working. The NSS was one example and if the international community seriously wants to address this threat, probably that is an example that we should be looking at. Thank you.

Giorgio Franceschini, Senior Researcher, PRIF/HSFK; Chairman, EU Non Proliferation Consortium

The very last word is from the chair, who would like to thank the panellists for their very interesting presentations and food for thought. Please give them your warm applause.