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Andreas Persbo

Thank you, everyone, for coming to this session. This afternoon's session will discuss proliferation case studies. We are going to discuss North Korea, Pakistan and Syria in particular. As you all know, they are all avid consumers of sensitive nuclear technologies but also, some would say worryingly, suppliers of the same technologies. One country has conducted their trade outside the regime; one, from the inside perhaps; and one is a bit ambivalent about where it should stand, but is presently on the outside.

The ultimate panel here would be one of comprised of AQ Khan, Ambassador Othman from Syria and Kim Kye Gwan, talking about the why and how to proliferate. I tried to get Mark to organise this panel, but he said, 'You are insane. That will not happen.' I am pleased to introduce the very best that Europe can offer, not as proliferators of course, but in terms of counter-proliferators. Their biographies are in the packs, so please take a second to review them. After their remarks, you will have time to ask questions. Finally, to paraphrase my good friend Mark Smith from Wilton Park, be brief, be considerate and, preferably, witty. Thank you very much.

Dr Bruno Tertrais

I realised that this is actually the second time in 24 hours that I have participated in a panel organised under the auspices of the IISS, which is a tribute to the fact that it is extending its tentacles all over the strategic world. Yesterday at 4pm I was at a panel in Israel talking about the new Middle East. Now, under the auspices of the IISS, 24 hours later I am in Brussels for another IISS panel. I hope my Saturday will be free.

I have been asked to talk about the Pakistani WMD programmes. I will obviously concentrate on the nuclear and ballistic missile programme. I have not found any evidence of Pakistani chemical or biological weapons activities.

You all know the basics. The most credible estimates say that Pakistan has about 100 nuclear weapons. The number of missiles is not very often accounted for, but the sources I have say there are a total of about 200 ballistic missiles. There are two expressions that I think characterise the Pakistani nuclear and missile programme these days. One is mine and the other is not entirely. The first is what I call 'unconstrained expansion'. Clearly it is not news to you that Pakistan has been embarking on a rapid expansion of its nuclear and missile programme. The expansion of the missile family is particularly interesting, because it seems that Pakistan wants to develop what I would call a seamless family of missiles of all ranges and all kinds. There are very few prospects for Pakistan to abide by constraints such as the Comprehensive Nuclear-Test-Ban Treaty (CTBT) or Fissile Material Cutoff Treaty (FMCT).

The second expression is not mine; other people have used it. It is 'controlled escalation'. This could characterise the current doctrinal orientation of the Pakistani nuclear weapons programme. However, I would argue that exactly where it is going is still uncertain, and we should not jump

quickly to conclusions from the mere development of the Nasr missile. I am not actually sure that the Pakistanis know exactly what they want to do with it.

Concerning the risks, my main message is that the main risks today are definitely not those of 'weapons falling into the wrong hands', or, even less than that, of an 'Islamist takeover of the country'. The main risk is what happens in wartime. Back to basics, the biggest Pakistani nuclear risk is that they actually use the weapons, but also partial loss of control of the nuclear complex during crisis or wartime.

I am fairly convinced by the robustness of the set of institutions and procedures that Pakistanis have put into place over the past 12 to 13 years. I think they do a pretty good job of preventing the unauthorised use, theft or sale of weapons, materials or technology. There is no doubt that the Pakistanis have been taking nuclear weapons and missiles very seriously, first and foremost because, at least since 2001, it has understood that it is in its own very best interests. It now has ten years of experience with the structures that it put in place in the early 2000s. My understanding is that they keep on improving the system, in some respects, notably on the civilian side with the control of nuclear material facilities in use and radioactive sources.

They were not entirely geared towards preventing a terrorist attack against nuclear sites until a few years ago. What they were primarily aiming at is preventing an Indian, or maybe even American, attack against their sites. They have not done too bad a job at improving the security against terrorist attacks on their nuclear sites in the past three to four years. By the way, we can have a discussion about the terrorist attacks that have taken place in recent years against suspected nuclear-related sites or command centres. Obviously, the attack on the general headquarters (GHQ) in Rawalpindi was a big deal. I am ready to enter into a discussion about why I do not think these attacks could be used as signs or precedents that could apply to a nuclear site.

As far as the risks that Islamists take over the country, I am going to be very brief, because tens of pages have been written on the subject. It seems to me that, clearly on the civilian side, neither the structure and appeal of the parties, nor the nature and structure of the militancy, give any credibility to any short- or medium-term scenario of a 'takeover of the country by militant forces' or by 'Islamist' forces. On the military side, there is simply no organised entity that would be willing and able to stage whatever Islamist coup could exist in the military establishment.

Let me return to the five specific risks one should identify. Again, wartime is the most important one, and deliberate use or partial loss of control of the nuclear complex, especially on the weapons side if they go – and I emphasise *if they go* – towards battlefield use or at least deterrents by denial on the battlefield, which may imply some form of partial pre-delegation to mid-level units.

This does not mean that peacetime risks do not exist. The peacetime risks that I believe are the most important are the following. The first is low-level leaks of expertise or perhaps even material. One of

the favourite scenarios in this field is a set of individuals or an organisation that would be able to steal, from bulk handling facilities, small quantities of fissile materials over a long period of time. I am not entirely certain that the Pakistani system would not be able to detect that, if it is over a long period of time. Still, low-level leaks of expertise and materials are one risk.

The second peacetime risk is a radiological incident. Despite the efforts of the Pakistan Nuclear Regulatory Authority (PNRA), there are large numbers of radioactive sources in the country. If there was a militant organisation that was willing and able to organise a dirty-bomb scenario, it is definitely something that should be borne in mind.

The fifth and final risk is a longer-run scenario, which is the general weakening of state authority over the territory and a failure of governance. Perhaps this even includes a radicalisation of current policies and maybe a break with the West. This should not be discounted. I never use the expression, 'This should not be discounted,' so forget that. This is a risk that one cannot exclude. That is a sentence you should never use in policy studies; it is meaningless. Anyway, that is a more long-term political risk.

The EU should realise that it is more directly concerned by Pakistani nuclear and missile issues than many in Europe seem to believe. I think there are three specific EU concerns in this regard. One is that Pakistan may be a distant country, but even the use of a single weapon would have such deep economic and political repercussions around the world that the EU would be indirectly affected. I am not aware of Pakistan having serious designs for a long-range missile that could reach the EU, but there are unconfirmed plans for a 4,000-4,500km *Shaheen III*. I do not know exactly where this stands. The second kind of concern is a well-known one among all proliferation experts here. It is the question of imports of WMD-related technologies and materials from the EU.

The third risk is the proliferation spin-off to the EU neighbourhood. In the case of a breakdown in relations between Pakistan and the West – well, the EU and Europe – which is not impossible, one cannot exclude Pakistan's resumption of its policy of deliberate state-sanctioned exporting of technologies to the Middle East. In that case, the EU would be subject to concern.

What can the EU do about this? I do not think that the EU, as such, would ever be a major strategic player in South Asia, but there are still things the EU could do. The UN and Pakistan are to adopt very soon, I understand, a five-year engagement plan that would include a strategic dialogue. I would submit that this strategic dialogue should include a strong focus on that proliferation issue.

There is a tendency in European circles to lecture Pakistan on the importance of joining the Non-Proliferation Treaty (NPT) and the CTBT. That is the wrong way to approach Pakistan on these matters. Maybe this dialogue would be a way to encourage Pakistan to endorse the 2005 Amendment to the Convention on the Physical Protection of Nuclear Material (CPPNM).

The EU, in its relations with Pakistan, is mostly focusing on poverty reduction and humanitarian goals. I would say that, given its expertise on justice and security sector reform, perhaps it would be indirectly useful for non-proliferation purposes for the EU to reorient some of its assistance to Pakistan to the strengthening of the rule of law in the country. That is something that, in the long run and indirectly, could be quite important for ensuring non-proliferation from this country. Perhaps this is something that the EU could do, and likewise given the experience that it has gained over the past 20 years on the safety and security of civilian nuclear installations, in particular due to its assistance to the former Soviet Union. Maybe there are things that could be of benefit to Pakistan. Conditionality to the WMD strategy should be used with caution.

My final point is to say that the UN and its members should be aware that their technology transfers and military sales to South Asian countries can have an indirect impact on WMD programmes in the region. Of course, it would be excessive to say that transfers and sales to India can increase Islamabad's reliance on nuclear weapons, but I would say that, as is often the case, the EU does not always take into account the broader strategic picture when it does technology transfers and arms sales in Asia in general. That is true of course for South Asia.

Prof. Dr Joachim Krause

Thank you very much. I will start with a short assessment of the nature of the problem in North Korea, and then I will describe the EU's early attempts to help in defusing the crisis. The main part of my presentation will deal with recent developments and possible policy options.

The nuclear weapons programme of North Korea has been on the agenda since 1993, after doubts about the peaceful character of its nuclear programme had been raised. We all know the outcome was the Agreed Framework of 1994, in which the DPRK promised to give up the Yongbyon natural uranium reactor in exchange for the international community building light-water reactors and the delivery of heavy oil to North Korea's industry. The Korean Peninsula Energy Development Organization (KEDO) was set up at that time in order to implement this agreement but, eventually, the Framework failed for various reasons. I do not want to go into all the details.

In 2003, after the DPRK announced that it would withdraw from the NPT, the so-called 'Six-Party Talks' were started under Chinese chairmanship. The first rounds produced some results in terms of principles but, by the end of 2005, there had been no major agreement. The first nuclear weapons test by North Korea came in 2006. All of a sudden, two months later, negotiations resumed. The results in 2007 were very promising, because they included the promise to close and later dismantle the Yongbyon reactor. They also resulted in the flow of financial aid.

It was also agreed at that time that the DPRK was turning in a complete list of nuclear installations, and that the US would give further aid and would also remove the DPRK from the lists of states sponsoring terrorism. Unfortunately, this agreement unravelled, because the US claimed that the

North Korean list was incomplete. The North Koreans claimed that it was complete, but the Americans had their own list that Mr Khan had delivered to them. Not everything that was on that list showed up on the North Korean list. After one year of haggling, as we all know, North Korea launched its second nuclear weapons test in 2009. Since then, we have had no more talks.

Instead, we have seen sanctions against North Korea with not much effect. China, by the way, has not imposed sanctions against North Korea, because rather than a nuclear-armed North Korea, they are much more afraid of a North Korea that is collapsing and a Korean unification according to the German model.

What was the role of the EU? The role of the EU was that of a constructive bystander. In 1997, for instance, the EU became a member of KEDO and shouldered a share of KEDO's budget of around 5%. The EU was not a member of the Six-Party Talks, but EU members always expressed their readiness to cooperate with the parties in the implementation of any kind of agreement. After North Korea undertook its nuclear weapons test, the EU was among those that imposed sanctions and an arms embargo on North Korea.

Let me now come to the latest developments, because I think they are very interesting. Firstly, what is new is that South Korea, at least since 2008, has embarked on a very tough policy against the DPRK. This is most visible under President Lee Myung-bak. This is based on frustrations, but it is also underpinned by the growing military capabilities of South Korea. We have to look at these more clearly.

South Korea is in the process of modernising its armed forces, which is very interesting. This is reflected, for instance, by the increase in defence expenditures. Even if the increase is not what they had planned, the rise in defence expenditures is amazing. The defence expenditures of South Korea today are five times higher than they were in the 1990s. They have tripled since 2000. The money is being invested into an overall modernisation of the armed forces, which should make them compatible and inter-operational with the US forces. The Defence Reform Plan 2020 by the ROK [Republic of Korea] calls for a futuristic force structure by which revolutionary changes in the war-fighting paradigm, triggered by the development of information, science and technology, should be applied. That means the aim is network-centred warfare, and the investments they are making currently are impressive. They are procuring airborne early warning and control systems, C4I capabilities, new battle tanks, F-15 aircraft, precision-guided munitions and anti-missile missiles. The South Koreans have been supported by the US, which agreed with them in 2003 that they could develop and transfer their own military capabilities with reference to the military transformation of the US. This will fundamentally change the balance of forces on the peninsula.

The ROK has not yet achieved all its goals, and there are still many military capabilities lacking, particularly in reconnaissance and early warning, but the gaps have been identified and will be closed, one after the other. Through 2020, the defence budget will be increased by 7% a year. It will

further double by 2020. Although the North Korean military has an impressive number of soldiers, its equipment is heavily outdated. Most of its weapons are Soviet, from the 1960s and 1970s. They would have no chance against the modern South Korean army, which practises network-centric warfare. Even the threat of long-range artillery attacks directed against Seoul might disappear under the conditions of South Korean air superiority.

Additionally, South Korea is achieving an increasing amount of independent operational control of its armed forces. For decades, South Korea was virtually unable to operate on its own but, today, the situation is changing. In 2007, the US and the ROK agreed that, by late 2011, the ROK should be able to exercise full operational control on the whole Korean theatre. This goal has not been achieved so far due to budgetary restraints, but it has been agreed that, by 2015, this full operational control should be established.

Beyond that, and to make things worse for the North Koreans, South Korea has started a major diplomatic offensive in order to convince China and Russia that unification of Korea would not be detrimental to their interests. It is amazing to see how many high-level visits there have been between President Lee and his counterpart in China. They met in May 2008, September 2008, May 2009, June 2010 and recently in January 2012. This is very unusual. President Lee was successful, to a certain degree. In May 2008, for instance, China agreed to a formula according to which the relationship between both countries was defined as 'a strategic cooperative relationship'. This is not yet a strategic partnership, but it is just one level below. As you can read on WikiLeaks, senior South Korean diplomats are meanwhile confident that the Chinese are so fed up with the DPRK that they might accept unification under South Korean leadership. Whether this is correct, I do not know, but that is what the South Koreans are trying to say.

North Korea, on the other hand, has made no progress in terms of its economic recovery, and the situation with regard to food and energy supply is still disastrous. The operational value of its nuclear weapons is questionable, and their missiles, which are all copies of Soviet missiles from the 1960s and 1970s, are of limited value. We all know that the missile tests of the past were failures. The tide is changing against North Korea, and their leadership is slowly recognising the possible impacts. We saw the momentum in December 2010. After a series of brutal armed provocations by North Korea in the disputed borders off the western coast, the ROK announced that it would carry out artillery exercises with live ammunition in a sea area that had been claimed by the North Koreans. Pyongyang at that time declared that this step would mean war. The South Koreans conducted the exercise and no war took place. Since then, the assertiveness of the South Koreans has increased. The North Koreans seem to be intent to negotiate again now, but the point is that nobody wants to negotiate with them, because they have reneged and broken agreements so often before, and it is difficult.

The point is what is happening there. The North Korean options are shrinking and the South Korean options are growing. There may be a window of opportunity in the coming years. There have

already been bilateral contacts between the Americans and North Koreans. The nature of that was to find out whether the list of nuclear installations could be completed again, but these negotiations were stopped after the death of Kim Jong Il.

There is another opportunity for the EU. The North Koreans are, all of a sudden, very much interested in confidence-building measures of the kind that we had in Europe in the late 1980s and 1990s. I mean the Vienna kind of confidence-building measures. This might be an area where the EU could offer some kind of assistance or open some kind of negotiation, because this is something in which the North Koreans are interested, and maybe the South Koreans and Americans, too. From this might develop some broader dialogue that could prevent anything worse from happening. Korea is open for everything possible. We might have a small impact. Europe is not a major actor, and with this I will close. Thank you.

Emile Hokayem

Thank you and good afternoon. I am in a fortunate or unfortunate position, in the sense that everything I am going to say is almost irrelevant, given how profoundly Syria has changed in the past year in the way we think about Syria, its own proliferation ambitions and the risk posed by it. Before I start, I just want to acknowledge that the research I am doing on Syria and its WMD programmes is in cooperation with our young superstar at the IISS, Dina Esfandiary. This is a joint effort between the two of us.

Compared with the North Korean and Pakistani cases, Syria is a special one in the sense that it is much closer to Europe geographically and historically, for a host of reasons. It is also a case in which Europe has played a central role, as it has not in North Korea or Pakistan, where Europe is very much, I would say, a peripheral actor. This is also the case because Europe had multi-dimensional relations with Syria. It was part of its Neighbourhood Policy. It had a role in the peace process with Iraq, Lebanon and so on.

Syria's WMD programmes were never a primary focus of EU policy. The Syrian arsenals were considered small by Middle East standards, especially compared with the big guys on the block – Iran, Iraq and others. Syria was considered a military weakling, a country that had few resources at its disposal and was unable to muster to become a great power. It had lost its patron in the Soviet Union and was scrambling to pay back its debts to Russia for decades.

There was a widespread and mistaken assumption that Syria was not that interested in taking risks, especially in developing nuclear weapons; that Syria's chemical weapons – which are by some estimates the largest in the world – were a very inadequate equaliser against Israel's own nuclear capabilities; and that actually Syria had signed the NPT and was not developing nuclear weapons. These were mistakes. It had a nuclear programme but not nuclear weapons, obviously. Also, Syria had not signed the Chemical Weapons Convention (CWC), so it was not technically in breach of a treaty.

Finally, there was also the assumption that Syria was a reasonable and predictable actor, unwilling to use its chemical weapons except in an extreme war scenario with Israel. That made the UN and other actors a little less interested in tackling this issue upfront.

As I said, the European approach to Syria was what European diplomats like to think of as a multi-dimensional one. I am not convinced by that. It was, at some level, a European delusion, but that is how Europeans like to think about it. They focused on the peace process, on Lebanon, Palestine and, later, Iraq. They focused on the process of the Mediterranean Dialogue and the attempt to make Syria part of the Neighbourhood Policy. The real thinking here was that economic integration and trade would lead to political liberalisation, which would eventually lead to strategic reorientation and peace with Israel, at which point the Europeans and others would be in a position to tackle Syria's WMD challenge. As a few European officials told me, proliferation was item four or five on the EU list for Syria, competing with human rights. When we look at where Syria is today, one could argue that this was misguided. Proliferation, especially nuclear proliferation, emerged as a major issue after the discovery at al-Kibar. Human rights, given what is happening in Syria these days, seem to have been a major problem. That was pushed down by EU policy.

The EU's thinking on Syria and its security policy was informed by the realisation that the EU was a marginal actor in Syria's own security thinking. The EU had scant leverage over Syria on its own defence procurement, WMD programmes and so on. Also, the EU realised that any discussion on Syria would need to be framed in a regional context – Middle East WMD-free zone, gradual prodding on the CWC and so on.

The EU's strategy was basically to tie in and entangle Syria in a series of deals and arrangements, from the Barcelona Declaration in 1995. I think most people in the room know what that stands for. More importantly when it came to Syria, there were the negotiations on the Trade and Cooperation Agreement (TCA) in 2004. In June 2003, the EU adopted a set of basic principles for a strategy against the proliferation of WMD. Every TCA that the EU wanted to negotiate from then on needed to include a clause on proliferation. The first country with which the EU negotiated a TCA after adopting that clause was Syria. Israel had signed its own TCA with Syria in 2000, and there was no WMD clause in it, just a reference to the Barcelona Declaration.

Back in 2004, Syria resisted and put up a very tough fight against the inclusion of this WMD clause. Why was that? I suspect that the Syrian negotiators were not aware of the building of al-Kibar at the time. I think the guys the European negotiators were dealing with were not key actors. That is the reality and it is why EU policy was a bit delusional, in the sense that they were not talking to the people who were really making decisions on any issue. The opposition was not driven by al-Kibar itself but the need to defend. It was basically a feeling of double standards and the need for Syria to put up a fight at the moment when it felt pressured by the Americans, who had just been in Iraq. There was the sense that that was the moment to claim the mantle of Arab resistance against Western

pressure and aggression. Essentially, the TCA went nowhere because, between this and escalation on Lebanon in late 2004 to 2005, the EU retreated.

There were other problems with the EU approach towards Syria. The first is competition between and among EU countries when it came to shaping Syria's policy. Some countries were very soft at times and became a lot tougher. France is a typical example of that. They were very soft in 2004, and very tough from late 2004 onwards. The UK was tougher on WMD. Italy and Spain are always soft on this issue. The process was very important for a lot of EU negotiators, including here in Brussels. Process tends to divert from objectives. The EU was opposed to the US strategy on Syria, thinking that the kind of pressure that the US was exerting was not really productive. There was also a sense that Syria was misunderstood. Actually, there was some sympathy in EU capitals towards Syria – that it was the weaker party, and asked to give up WMD programmes that were not actually that problematic.

The problem with all this is that, the moment that al-Kibar emerged and we learned about Syria's covert nuclear programme, the tough questions about Syrian motivations were not actually asked. Al-Kibar shattered a number of the assumptions we made about Syria, about its lack of resources, its lack of interest in nuclear programmes, etc. A big question here is why Bashar al-Assad decided, in spring 2001, to embark on this venture. Spring 2001 was before 11 September 2001 and the US invasion of Iraq so, at that time, there was nothing shattering or fundamentally different in the security environment. Why was that? Essentially that was an opportunistic venture for Bashar al-Assad. That was confirmed to me by a Syrian official who just defected. He was offered this opportunity and decided to embark on it.

The second point is that it was a legacy project. If you start in spring 2001, it must mean that the plans and negotiations had started long before and probably under his own father. This was, in a way, an opportunity for him to build credentials within his own system.

There is another angle, which is that Bashar al-Assad wanted to add a card to his hand. He was supporting terrorist groups and adding cards to his hand in Iraq and elsewhere. Al-Kibar was probably one of those, but the problem is that al-Kibar was not a turning point in how the EU thought about Syria. The hard questions were not asked and that was confirmed to Dina, others and me by a number of officials in the EU but also in the US, who were very critical. A quote from an EU diplomat summarises all of this. Why should we have cared about al-Kibar in 2008-09 when the EU re-engaged Syria? It was gone; the Israelis had destroyed it.

People were thinking in terms of capabilities, not mindset. Why did Syria embark on that? What does it tell us about Syria's motivations? People were focused on the absence of capability. Al-Kibar was no longer a problem. There were much bigger issues to deal with at the IAEA – Iran's nuclear programme and so on – and al-Kibar did not serve that.

Today, we are dealing with a fundamentally different Syria, of course. It is a weak, challenged regime that may fall very soon. It is unstable. It is unwilling to deliver on anything in which the EU and others are interested. Today, the question is about the implications of the civil war in Syria for WMD, in terms of loss of control of chemical weapons or the use of the regime in the case of an existential challenge. Thank you.

Questions and Answers

Paul Schulte, Non-resident Senior Associate, Nuclear Policy Program and Carnegie Europe, Carnegie Endowment for International Peace

This is to Joachim Krause. I agree very much that there is a major high-technology South Korean build-up going on, and you could have mentioned the fact that they are building themselves a 1,500km cruise missile, explicitly to give themselves some deterrent. More interestingly for this discussion, they want to buy 170 stealth cruise missiles. If it is not the Lockheed Martin joint surface-to-surface standoff, it will be, if Europe and Germany agrees, the German *Taurus*. There is an interesting proliferation decision immediately.

More importantly, I do not think this matters as much as you do. It does not change the fundamentals on the Korean peninsula; the North Koreans could never have won if they went to war with America and South Korea. They would lose more quickly now, but you are still looking at, if not a million dead and \$1 billion, maybe a few fewer dead but rather more money, because of all the capital investment going in and around Seoul, which would stand to be destroyed with what the North Koreans could still do, not mentioning biological, chemical or nuclear. I do not think it changes as much as you think.

Greg Thielmann, Senior Fellow, Arms Control Association

Many advocates of missile defence in the US advocate the systems as a way to discourage the development of ballistic missiles by hostile countries. That does not seem to have worked very well with Iran, so I wondered if you could comment on India's ballistic missile defence programme and South Korea's increasing interest in missile defence, in terms of the reactions of Pakistan or North Korea, respectively, to those efforts.

Sico van der Meer, Research Fellow, Netherlands Institute of International Relations 'Clingendael'

I would like to hear your opinion on the proliferation risks of North Korea. Some experts say that North Korea desperately needs foreign currency. If any terrorist organisation or rogue state would pay a lot of money for nuclear or missile technology, especially nuclear missile technology, they will deliver it. Do you think there is this kind of proliferation risk or that North Korea would not do these kinds of things?

Dr James Acton, Senior Associate, Nuclear Policy Program, Carnegie Endowment for International Peace

Just to add to something to what my colleague Paul Schulte said about the potency of North Korean artillery, my understanding was that the counter-battery fire that the South initiated after the shelling of Yeonpyeong-do was pretty ineffective and demonstrated quite significant failings in South Korean command and control, and reconnaissance capabilities. That was not actually the main point I wanted to make.

I wanted to ask the panel – Joachim but also Bruno as well, and anyone else who wants to comment – how much materially worse off we would be if North Korea had an operative delivery system. Lord Hannay made the point this morning that North Korea does not, and Joachim Krause made that point just now. Looking at it, I think we are already deterred by North Korean nuclear weapons. They might not have militarised them, their missiles might not work, but there is enough to put significant doubt in our minds, as is the possibility that they could use an unconventional delivery system. I would argue that military action against North Korea is unthinkable today in a way that it was not during the 1993-94 crisis. The big difference there is North Korea's acquisition of nuclear weapons. I want to push a bit further on whether you think an operative delivery system would give North Korea more deterrent capability and, if you do, why that is.

Prof. Dr Joachim Krause

There was a question from Paul Schulte on whether there has been a fundamental change. Yes, there has been, because the South Koreans are increasingly able to operate independently of the US. The US has always shown much more restraint in responding to North Korean provocations, for good reason, while the South Koreans are much more affected by this. They have fewer constraints and have become much more assertive in this regard.

This is creating a fundamental change – I stick to this – because until now the South Koreans could only operate together with the US. For the US, this is something that has to do with China. If the South Koreans succeed in being able to lead their own war on the Korean peninsula – if they are ready and able to bring the message to the Chinese that this is an inter-Korean affair but not a major change in a broader strategic equation – this might well happen. Whether the Koreans have concrete plans to invade the North is another point but, meanwhile, at least it works as a deterrent against the North making more provocations. The last provocations of 2010 were the final provocations so far. Since then, it has been silent.

The South Koreans are investing in missile defence. This is part of their overall rearmament programme. They know that not every missile might be caught, so it is part of the overall set-up but it is not all of it.

The question was what the risk of North Korea proliferating further is. This is surely a high risk, and a risk that has been on the agenda for more than ten years, at least since the beginning of the Proliferation Security Initiative (PSI), which is basically directed against North Korean ship and air deliveries of dubious materials and technologies. I heard from people in the intelligence area that the number of missile deliveries has decreased considerably, mainly because the quality is no longer as good as it once was or the market is saturated. The opportunities for the North Koreans to earn a lot of currency have shrunk considerably.

There was a question on artillery and unconventional delivery systems. You always have to reckon on unconventional delivery systems, but what kind? The North Koreans do not have the option of putting this on a big truck and parking it in the vicinity of the border. If it was somewhat near Seoul they could create some havoc, but Seoul is still 30km away from the demarcation line. The typical unconventional means that we have in mind when we talk about terrorists using trucks or containers are not in the forefront as much. I have doubts about whether the North Koreans really have operational nuclear weapons, because their first nuclear test was just one kiloton and the second was just six or seven kilotons. This was not very encouraging, and we do not know exactly what they have. The Yongbyon reactor is no longer operational. They are working on uranium enrichment. This is exactly what the Americans are suggesting, but this has to be clarified. I do not know exactly what the operational value is of the nuclear weapons material they have separated in the past.

Dr Bruno Tertrais

First of all on the question raised about Greg Thielmann on dissuasion, this is what the previous American administration emphasised very much. On the Pakistani side, in the mid-2000s, when they saw the beginning of a major strategic US-Indian relationship that would, according to them and rightly so, lead to transfers of technologies that could help the Indians build up their ballistic missile defence (BMD) programmes, the image the Pakistanis projected was to be very sanguine about it and deal with it. They thought they understood what they would be willing and able to make, and had factored that into their long-term plans in advance. I think there is an element of sincerity in that discourse, whether they are right or not.

More generally about dissuasion, if it can work – and I am not even sure it is a credible role for BMD – it can work only according to two conditions. It can work for missile programmes that are at a very early stage or for a country that does not have any missiles but is considering buying a symbolic capability. Early-stage and symbolic capabilities are pretty stringent conditions, and they certainly do not exist in the case of Pakistan.

James began his question by saying 'we'. The answer to his question depends partly on who 'we' are. If 'we' are the Japanese, Americans or Europeans, you would have different psychological reactions, notwithstanding the exact ability of North Korea to target such a country. The answer to your question depends, as has been said before, on whether or not North Korea would seriously consider unconventional delivery options.

On that question, some East Asian analysts and officials seem to believe that, yes, the North Korean mindset could authorise such unconventional delivery options. I have grave doubts about the willingness of any authoritarian regime to put a nuclear device in the hands of people who are not necessarily... I mean, there is the terrorist scenario, but you could also imagine a small North Korean military unit, which was very faithful to the regime, undercover with a device on board a fish trailer, for instance. You can imagine these sorts of things. Again, I am being very cautious because I have never viewed such options as very credible for political reasons, but I note that some East Asian officials and analysts take them seriously.

The answer to your question depends on the answer to that question also: do the North Koreans have an unconventional option? The answer to this depends on whether we are talking about one operational warhead or 50. That makes a difference.

Do you remember the movie *The Rock* from 1998? Rogelio, the former head of the Organisation for the Prohibition of Chemical Weapons (OPCW), knows what I am talking about. This is a model of the bins of sarin gas that were used in the movie. It is scary that these things are distributed all over the place. Sorry; I was trying to inject a lighter note. By the way, it is a good movie. You should rent it.

Andreas Persbo

Thank you, Bruno. It is a great shame that I did not see you at the general conference, because the Iranians were handing out very small centrifuges, so you could supplement your collection. Maybe next time you could bring a small cultivation of biological material. Who knows?

Riccardo Alcaro, Researcher, Istituto Affari Internazionali

I have a couple of comments to make on Bruno's presentation. Actually, Bruno made a few points that puzzled me, but I do not think I really understood what you meant. You mentioned in passing the possibility that Pakistan could develop long-range missiles able to hit Europe. I did not understand the meaning of your comment because, as far as I know, Pakistan and the EU are not enemies. I was just wondering whether you see a determined undercurrent that could potentially lead the two sides into such a bitter confrontation that the use of a nuclear-armed ballistic missile could be envisaged.

The second point that puzzled me concerned when you said that one of the risks we should be aware of is that Pakistan may perhaps, in the future, pass on nuclear technologies or materials to some Middle Eastern actors. I was just wondering to whom and, above all, why. This leads me to another point that struck me, because you did not really mention the possibility that the nuclear black market originates from Pakistan. Some years ago, Pakistan was at the centre of a great proliferation scandal. We are now assuming that the Khan network has been dismantled. I was wondering whether you think that is really so or whether similar activities, carried out with the acquiescence of parts of the government or by private actors independently, are still involved.

Tariq Osman Hyder, Member, Oversight Board for Strategic Export Controls, Ministry of Foreign Affairs, Pakistan

I have a few comments on Mr Tertrais's presentation. I am not sure I can be witty, but try to answer a few of them, if you may. I just want to make the point that Pakistan is firmly committed to non-proliferation. We never signed the NPT nor broke any international obligations to go nuclear. That should be clear.

My first point is on the question that Mr Tertrais raised that the state may resume the export of sensitive technology. I think we should be clear that it was AQ Khan who did that and we took action against it and dismantled the network. There were 22 individuals involved, most of them from Western countries. We do not see any sign of recurrence from the Pakistani side. That should be clear.

When you talk about states, since Iran is a great area of focus at this conference, it would be useful to look at the dynamics of security, and security in the Middle East, and Iran's quest for whatever peaceful nuclear capability, as well as the transfer from France to Israel in 1955 of a reactor and reprocessing plant. That is about the only example of a state transfer since the dawn of the nuclear age. There have been many cases of proliferation.

On the question of uncontrolled expansion, I will be very brief on the nuclear side since I made a comment this morning. If you start from zero and you are the last person on the block, when you go to one it looks like 100%. I do not really think that our programme of expansion on the nuclear fissile side can be called 'uncontrolled' or 'vast'. It is the same thing in terms of whether the missile programme is uncontrolled or seamless. It is basically a response to the threat that we face. The missile programme of our neighbour has been very extensive and varied for many years before our own. Even our cruise missiles have followed developments from the other side, and we have no intercontinental ballistic missile (ICBM) capability, as far as I am aware, that has ever been declared.

There was a comment that Pakistan has developed short-term nuclear weapons or missiles. I think Mr Tertrais said we are not quite sure what to do with them. I think that irrationality is not exactly to be taken for granted in responsible nuclear countries. The point is we were faced with a situation of doctrine from our neighbour that was called 'cold start' or 'proactive', which said that we can fight a limited war under a nuclear threshold. From our point of view, I presume a short-range missile like that would plug a gap and therefore would basically be a deterrent in that case.

On the question of a threat to the EU from Pakistan using a nuclear weapon, I think that is also rather strange. The basic purpose of nuclear weapons from all nuclear powers is deterrence. Yes, there has to be a belief in the mind of the adversary that, if the national existence of another country was threatened, they would use a nuclear weapon. The idea is basically to deter any conflict; it is not that you would want to provoke a war.

Lastly on the EU/Pakistan export cooperation, we should be clear that Pakistan, in terms of nuclear safety and security, has had extensive cooperation or at least exchanges on best practices, including with the US and EU. We have had joint seminars on export controls, one with Germany, one with the EU and one in Pakistan. In 2006, the EU gave us an agreement on non-proliferation and, on the same or next day, we gave them a counter-draft. We have been waiting for a response to that from the EU side since 2006. There is no lack of desire on our part to be a partner with all countries in terms of non-proliferation. Of course, we have to decide whether to be a partner or a target.

Jacek Bylica, Head, WMD Non-Proliferation Centre, NATO

The title of this session is 'proliferation case studies', which has a very nice academic ring about it. Let us study the cases and write papers or PhD dissertations about them, but both the presentations and discussions showed that these are real-life issues, or maybe life-and-death hot issues. My request to the panellists is: could each of you please rank those cases in terms of urgency of engagement, as if you were to advise the EU about where to engage first? In real life, there are limitations. There is a limited number of resources to assist. There is a limited amount of political capital to be spent on pushing a solution. There is a limited number of personnel to send on shuttle diplomacy, and so on. If you were to advise the EU where to engage, could you please rank these or some other issues, and justify that briefly?

Dr Götz Neuneck, Deputy Director, Institute for Peace Research and Security Policy, University of Hamburg

My question takes the same direction. We heard a lot about deterrents, rationalities and delivery systems – wonderful things. It would be worthwhile to speak about urgency. Let me exemplify that in one case. You spoke about Syria. What happens if chemical weapons, stockpiles, missiles and others fall into the wrong hands, whatever 'wrong hands' means in a region full of weapons of mass destruction? We have had the case of Libya. I would like to ask you but also others – the OPCW, NATO and the EU – whether these organisations are capable of securing nuclear or chemical material in a crisis, warlike or uprising situation. This is very urgent. As a citizen, I would be quite relieved if organisations that receive a lot of money have the right tools and are not confronted by surprises, as in Libya, when suddenly we had problems with man-portable air-defence systems (MANPADS) and other kinds of weapons.

Dr Bruno Tertrais

Firstly, let me deal with the question on urgency of engagement. Syria, although it is not an engagement problem, is a management problem, because the issue of lingering Syrian WMD programmes and capabilities – they are more than lingering actually – is certainly urgent. I am not aware of exactly how this is being dealt with by our governments today, so I cannot give you an informed opinion on that. Certainly on paper, from a theoretical standpoint, this ranks first on my list. That is valid for the Europeans, too. Pakistan would rank second and North Korea a distant

third from the EU's standpoint, in terms of balancing what the risks are for the Europeans, what they can do about it and what their added value is vis-à-vis other priorities. This is my list.

Ambassador Hyder, firstly let me reiterate that I do think that Pakistan, in the past years, has been reasonable and responsible, in fact, in dealing with and improving its control of nuclear weapons and materials. One of the things that many Pakistanis are saying, like me, is that they have been taking better care of their nuclear weapons than the Americans have. I mean that seriously. I am aware of the improvements that have been made on the civilian side, and I understand that you personally have some responsibility for that. Let me reiterate, to make it clearer, that I do not think that Pakistan is proliferating today.

On the specific points, I have not been able to make up my mind about the existence or non-existence of a *Shaheen III* programme of 3,000-3,500km. If there is a capability – that is, if at some point in the future there is a missile that can reach Europe – it is not completely irrelevant to Europeans. The fact that we are not enemies does not make it irrelevant. I do not know what the relationship between Europe and Pakistan will be 15 years from now. Psychologically, it could make a difference. On nuclear experts, your question was 'to whom?' I have a list that begins with 'A' with Algeria, and which finishes with 'T' with Turkey. These are all theoretical possibilities. I am just pointing to the fact that I am very confident about the behaviour of the Government of Pakistan today. Given the very rocky road ahead for relations between Pakistan and the West, I do not think it is too early to think about some of the scenarios that could happen if the Pakistani Government took a different turn in terms of its nuclear policies 15 years from now. That is all; it is all theoretical and on paper for the moment.

Pakistan has left the black market. Maybe it will come back in ten years from now – I do not know – but the market remains. There are centrifuge and warhead designs on the market, probably Pakistani warhead designs and probably sophisticated ones. Whatever the responsibilities are, they are on the market, so it is a problem.

It is interesting that you mentioned Iran, Ambassador, because one of the things I did not talk about was the impact of an Iranian nuclear capability on Pakistan's own perceived requirements and doctrine. There is a scenario in which, just like India has to face two potential nuclear armed adversaries, China and Pakistan, Pakistan has to face one adversary and one not-so-friendly new nuclear-capable country to their west.

Finally about Nasr, I said that I am not entirely certain that the Pakistanis have a very clear idea of what they will do with it. That has nothing to do with Western rationality or a Western condescending view of Pakistan, absolutely not. It has to do with the very real fact that it would not exactly be the first time in the history of nuclear programmes that you develop a capability and then decide what to do with it.

Emile Hokayem

I agree with Bruno that my issue, Syria, is the most important one at this point. It is an issue of management, and the first point here is almost a conceptual one. EU and other officials have to accept that they were guilty of a lack of imagination when it came to Syria. Al-Kibar is an example. Now we are facing another situation with the uprising against Bashar al-Assad. Yes, loss of control is certainly an issue that looms and should loom high on the policy agenda, but I think the issue of the use of chemical weapons by the regime, against its own population, is something that is plausible and needs to be considered. A lot of people used to discount this. I put this in the same pile of mistaken assumptions by European and American policymakers. This is a moment for some sober thinking at this level.

Do I think it is probable? No, I think that would precipitate intervention in Syria. Bashar al-Assad knows this; he will not get away with what Saddam Hussein got away with in 1988, but it is not implausible. That requires the kind of contingency planning on the part of European and Western policymakers that is very important. The first step is signalling – statements to the effect that this will not be tolerated and that this issue is being monitored very closely.

When it comes to loss of control, chemical weapons are mounted on artillery shells in the region south of Damascus. This extends to Daraa, Sweida or the southern region neighbouring Israel. This is where the uprising started and where you have a very active insurgency today, so of course there is this issue. A number of experts I talk to tell me that they may use chemical weapons for base protection. It is not as if there will be a call from Damascus to say 'use it'. That is a possibility. There are entire regions that are currently under the control of defectors and others, in Hamah and other places. These are places where the regime could use it. The strategic capabilities, so *Scuds* and chemical warheads possibly mounted on missiles, are more to the north of Damascus. The insurgency has not reached those areas. Signalling and contingency planning are extremely important, in case Bashar al-Assad uses his chemical weapons.

Prof. Dr Joachim Krause

Jacek Bylica asked us to rank the urgency of cases. I would say number one is Iran, and then come Pakistan, North Korea and Syria. When we look at these cases, we have to be aware that all are embedded in broader political disputes. When we talk about Pakistan, for instance, we have to be aware that it is our main ally and our main problem in the fight against terror. Pakistan is part of the solution and part of the problem. It is very complicated, so no simple answers are possible.

To the question from Götz Neuneck about whether international organisations are able to pick up weapons material, I do not see that any international organisation except NATO would be able to do this, but they all have to rely on national capabilities. The IAEA and NATO have no special teams, but they could ask national teams to do this. In the past, very few states were able to do this. I doubt whether Germany, for instance, for constitutional reasons, would be able to say we have a unit. This

is something lacking.

Rogelio Pfirter, Former Director-General, OPCW

I have a question for Dr Krause first. Do you see any merit in introducing the issue of chemical weapons within the Six-Party Talks? As Director-General I tried for eight years to bring North Korea into the treaty. Of course, I failed, but I also failed to arouse any interest within the Six-Party Talks to introduce this element into the basket of issues to be discussed with North Korea. There is no question that the nuclear issue has a priority and an urgency that everyone can accept but, as has been mentioned, chemical weapons are also part of the security scheme in that region. Is there any merit in trying to introduce this element, which possibly offers an easier way for North Korea to return to the mainstream concerning non-proliferation?

Secondly, I can only express my agreement, and also my frustration, with Syria and the fact that the EU dropped the clause on non-proliferation from the TCA. I have also been sermonised for eight years by Syrian officials and, at the time when this treaty was being negotiated, there was a softening of the line, but then the EU accepted that the treaty could be made without it and, again, Syria returned to their old arguments.

You mentioned the possibility of chemical weapons being used in internal conflict. Do you also see the possibility of their being used externally in order to deflect attention or justify any other action internally?

Concerning the question of whether the OPCW would be able to go in, of course not; that is not part of its mandate. The OPCW has no enforcing power. The organisation is still trying to send inspectors to Iraq. The stockpiles are in Fallujah, where the security situation is very bad. No Director-General in his right mind would send civilian inspectors, who have no protection of their own, into a war zone or area of violence. That has to be very clear. Certainly no blame can come to these organisations, which are expensive but do pay off every penny in doing what they are mandated to and not other things.

I heard Ambassador Hyder, for whom I have the highest regard, about assurances. Bruno said the only chance of using nuclear weapons would appear to be war; as an analyst of risk, how high is the risk of a conflict? Conversely, do we see signs of progressive transparency being adopted in South Asia, which would suggest the possibility of some sort of de-freezing of relations in the WMD field?

Frédéric Journès, Deputy Director, Strategic, Security and Disarmament Affairs, Ministry of Foreign and European Affairs, France

I have a double question for Bruno Tertrais and Prof. Krause. From what you say about Pakistan, a few things came to my mind. I was recalling my experience from Afghanistan, where I dealt with our relationship with Pakistan. As you said, we are lecturing Pakistan a lot. We are lecturing them on treaties and terrorism. You also pointed to some elements of what would be, I would say, a more

businesslike and direct-interest way of discussing with Pakistan our shared interest in its stability and capacity to secure its nuclear arsenal, which is actually doing quite well. Do you have an insight or personal vision of the possibility of going towards a very mature relationship with Pakistan, based on common interest, with less lecturing and mistrust?

To Prof. Krause, I was very interested in what you described as the likely scenario of early collapse of the DPRK under rising pressure. Beyond what you said of the confidence-building measures that we used in the 1980s in Europe, do you see an accompanying country in a Deutsche Demokratische Republik (DDR) case of transition or reunification?

Mark Fitzpatrick, Director, Non-Proliferation and Disarmament Programme, IISS; Vice Chair, EU Non-Proliferation Consortium

I am reminded in this panel of a second major failure of the organisers. The first was this morning, when George Perkovich was talking about Brazil, and I realised I should have tried harder to have a Brazilian representative here. The second is I should have tried harder to have somebody from South Korea here. If they were, I think they would feel compelled to point out that the South Koreans have a much greater reason than the US to exercise caution because, after all, it is their capital, country, stock market and people who would suffer in the event of any resumption of a second Korean War. They would also probably feel compelled to say that they had to restore deterrence after the provocations of 2010. They would agree with Joachim that that seems to have worked.

The more important point is probably that if in Europe we look at the Korean peninsula and see a growing imbalance, certainly that is how the North Koreans would see it as well. It would presumably make the North Koreans all the more likely to want to test a nuclear device again, if you are right that they do not have an operational one. I am less confident that they do not. I think there are other unconventional ways of delivering a nuclear weapon, such as through a mini-submarine. North Korea has exhibited the capability to insert mini-submarines into waters close to South Korea, so I do not discount that. The point is I think we are more likely to have a nuclear test. It is more likely the North Koreans will feel compelled to balance the South Korean conventional capabilities with every field of unconventional capabilities.

It is kind of like what is happening in South Asia. Bruno mentioned the major risk of battlefield use of nuclear weapons. I think that is because the Pakistanis feel increasingly behind. With India talking about 'cold start' policies, Pakistan feels more compelled to have tactical nuclear weapons. Maybe Europeans can offer some thoughts about how well this has worked in NATO planning over the years. I mention this as a comment, less than a question.

Roland Tricot, Acting Head of Section (Legal, Counterterrorism and Disarmament Affairs), Delegation of the European Union to the United Nations, EEAS

I was formerly with KEDO. Having worked there for five years, we always found the North Koreans to be matter-of-fact and very practical people. I wanted to make one comment and ask one question

of Dr Krause. The comment is regarding the situation for the artillery surrounding the north of Seoul, because the strategic assumption behind the agreed framework of 1994, and the 2005 and 2007 Six-Party Talks agreements, was that the North Koreans do not really need nuclear weapons, because they can deter any attack from the South by shelling Seoul, unfortunately. If there is a new strategic situation under which it could be suppressed, my own assumption would be that it becomes quite difficult for the North Koreans to renege the nuclear deterrents. I wanted to have Dr Krause's opinion about that, because he just mentioned in passing the fact that this artillery deterrent could be used in this new situation.

**Dr Mohammad Taghi Hosseini, Senior Expert on Disarmament, Ministry of Foreign Affairs;
Member of the Institute for Humanities and Cultural Studies, Iran**

I thank the panellists; it was a good discussion. We know that we are in an EU conference and understand that we will listen to and participate in anything you have prepared. We will try to be constructive and contribute if we can. I want to say two things. Firstly, I think we have to accord the issues based on the realities on the ground. A very important point in every study is not to over-exaggerate or under-estimate that thing.

My second point is that proliferation is something bad, which should be denounced. It does not make any difference who is involved. Proliferation is dangerous to our world today and should be avoided in any case. Based on those two points, I want to say that the structure of the discussion is a little imbalanced. Of course, I told you that we are guests who do not have any influence to change the structure of the debate. However, we have heard a lot regarding Syria. The speaker himself has said that it is not of importance at this moment. As a matter of fact, we have not even heard a single word regarding Israeli proliferation, which is a source of concern and destabilisation among Middle Eastern countries. If we are to have a balanced discussion here, we need some words in that regard as well.

Sheel Kant Sharma, Former Ambassador of India to Austria, IAEA and United Nations Offices in Vienna

I was utterly hesitant of entering into a South Asian discussion, but there were points made in recent observations. If you go back to the 1990s, there was a constant refrain about the conventional superiority of India. That is what justified Pakistan's nuclear programme. If you go to 1985, there was the famous Pressler Amendment, which tried to give Pakistan conventional weapons so that they do not try to obtain nuclear weapons. All that was going on, and India was keeping quiet, trying to convey its own position. Now again, after so much terrorism, 11 September 2001 and the kinds of problems that India have faced, like 26 November 2008 in Bombay, again the talk comes back to conventional superiority justifying the build-up of nuclear weapons and ballistic missiles with battlefield use. Where are we? Are we going back in a time warp or are we changing to the new situation that exists today?

As things stand, India and Pakistan are trying to work on ways to cope with possible non-repetition

of terrorist incidents. There was an incident in Bombay that was devastating and there was evidence that people from Pakistan were involved. The two countries are busy working that out. The Indian Home Minister, Defence Minister and Prime Minister have been constrained to say that, if a repetition of that were to occur, they would have to take action. If you are saying that this action would justify battlefield weapons so that action could not be taken, is this the understanding you have of the strategic equation on stability? Something is flawed in this whole thing. I would like just to point out that this is not correct.

Prof. Dr Joachim Krause

On the first question of whether chemical weapons should be introduced to the Six-Party Talks, I can only say no twice. Firstly, there are Six-Party Talks no longer; they are dead. Secondly, they are already complicated enough, and I would recommend they are not included.

The second question was on the function of conventional ballistic missiles in the Korean environment. Their main function is to give some kind of assurance that military exercises will not be used as a pretext for a major invasion. I have had a lot of talks with North Koreans on this, who have told me that this might be in their interest, and I can understand this given the imbalance in the Korean peninsula.

Mark, on your question about what South Koreans would say, I am sure they would be cautious. They have always asked for cautiousness, but they have also taken precautionary measures. You should not only be cautious, in particular when you, as a South Korean, have had experience that their cautiousness is a provocation for other sides to be much stronger and more provocative than before. What the South Koreans, this government in particular, are doing is being increasingly less dependent on cautiousness. They are able to respond in kind to any kind of North Korean incursion, and are even able to threaten the North Koreans that they could do away with their regime through a normal war. This is deterrence by denial.

There was a point made that the North Koreans are practical people. This was my impression too. When I have discussions with them, the nuclear issue is of no interest. They were talking about the conventional balance. This strengthens my opinion that nuclear weapons are not very operational in that regard.

As to their artillery position, this is well known. They are sitting ducks. Under current conditions of aerial warfare, they are sitting ducks and will be the first thing destroyed if any major war takes place in Korea. Their deterrent value is relatively low; it may be nil. They might be able to make one or two shots, but that will be it, because they have been sitting there for decades and everybody knows where they are. They do not have a big strategic value. I have the impression from my talks with North Korean officials that the deterrent value of their nuclear weapons is not estimated by them as very high. Whether they will carry out another nuclear test, I do not know; I do not know how much nuclear material they have but, with each new test, the amount of nuclear material becomes smaller

than before. This is a simple calculation: you use up nuclear materials. I do not know how much they have. I do not think anybody knows exactly.

Emile Hokayem

When it comes to Syria and the potential use of chemical weapons, I focused on the internal dimension, but there are two other risks here. The first, as you suggest, is the use of chemical weapons for external purposes. In the case that the regime is fighting for its own survival, you cannot exclude a scenario where, to try to divert attention, Syria provokes an escalation with Israel in which those capabilities are used. That would basically seal the fate of that regime. Is it plausible? Yes. Is it probable? No, I would still rank it very unlikely.

There is something else that worries me, which is the possible transfer of some of these capabilities to other groups including Hizbullah. Syria's artillery shells look like conventional weaponry, and we know that the Hizbullahis have got their hands on many capabilities over the years. That is one thing that would look like conventional weapons, if picked up by satellites or a spy, and then would turn out not to be. I am still doubtful that the Syrian regime would do something like that but, in the case of fear of an immediate collapse, they may use this or even float that they are considering that. They may even send out wrong information that they are doing it to put others on notice and tell them they are considering those kinds of scenarios.

To give you an example, a couple of weeks ago the Assad regime freed from gaol Abu Musab al-Suri, who is a top jihadist in Syria. He was put in gaol for a couple of years. Why now? If the regime is saying that Salafis and jihadis are fighting them, why would they do something like that? It is to show everyone that they can create trouble and that there are other options out there. This is a scenario that also keeps us concerned.

On the issue of Israel's nuclear arsenal, I agree that it is destabilising, but the reality, when it comes to Israel, is that you can only address this in the context of a regional security arrangement that recognises Israel as a state. Whether from Iran or other states in the region, there is still an unwillingness to go down this route. There is still very violent rhetoric against Israel, which makes Israel even more attached to its current capabilities. I say this as a Lebanese whose country is bombed every few years by Israel. It is not out of love that I say that. We cannot continue hitting the Israelis without putting this in the right regional context, in which all Arab states and Iran have a responsibility.

Dr Bruno Tertrais

On the risk of nuclear use on the South Asian subcontinent, I acknowledge that Pakistan and Asia are often trying hard to ensure that bad things do not happen. As someone said at the conference I was at two days ago, it only takes one stupid schmuck to ruin it all. I find it very difficult to believe that, if there is a second Mumbai or attack on the Lok Sabha, India would be able to resist the pressure to respond militarily on Pakistan's territory. From then on, everything is possible. The paradox of

stability/instability is a great concept, but it works in retrospect. I like it. I think it works. I think it is a great theoretical invention. It captures something, but it is not predictive, period.

On the question of lecturing Pakistan, I would say that, if the Europeans want to lecture any country, they have to be exemplary themselves. I hated it, at the time when we were all talking about how important the Additional Protocol was, when several EU Members had not ratified it. Likewise, we can start a serious conversation with Pakistan and others about the 2005 Amendment to the CPPNM or to the International Convention for the Suppression of Acts of Nuclear Terrorism when all of us in the EU have actually implemented those measures.

Just to clarify something, I very much emphasise that I do not think the EU, as such, has anything useful to do in terms of cooperation with Pakistan on the nuclear weapons side. Maybe the UK and France can have some useful dialogue on this, but I do not think the EU can. By the way, last time I checked, the Pakistanis were not interested either. However, I do think there are some things that can be useful to both sides on the civilian side. That is where I think the EU should focus.

Andreas Persbo

All that remains is to thank you all for asking the wonderful questions that made up the debate. Please join me in thanking the speakers.