

## [SE6-CV-1] Europe and Nuclear Security

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### Full Summary

Panelists on the Europe and Nuclear Security panel discussed a wide range of issues under the banner of nuclear security. From a technical standpoint, states generally accept the International Atomic Energy Agency's definition of nuclear security. On a political and diplomatic level, however, states tend to define nuclear security differently, complicating efforts to construct a global nuclear security regime. This panel focused on the European view of nuclear security as well as a wide range of additional issues, including nuclear terrorism and trafficking, tactical nuclear weapons, NATO alliance dynamics, missile defense, the Fukushima accident and other tangential topics like the Arab Spring and the potential impact of the Stuxnet attack on Iran's centrifuge program.

As Benjamin Hautecouverture, the panel moderator, noted, the IAEA defines nuclear security as the prevention and detection of, and response to, theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving nuclear material, other radioactive substances or their associated facilities. Nuclear safety, on the other hand, involves the achievement of proper operating conditions, prevention of accidents and mitigation of accident consequences, resulting in protection of workers, the public and the environment from undue radiation hazards. While these IAEA definitions are widely accepted, states tend to define nuclear security differently and have varying opinions as to what nuclear security does and does not entail. "There seems to be a consensus regarding the notion of nuclear security from a technical point of view, but this is not the case from a diplomatic and political perspective," Hautecouverture noted.

In this context, Hautecouverture described the European approach as pragmatic and functional. According to Hautecouverture:

- European actors are not particularly nervous about nuclear security since, for Europe, it is by no means a new phenomenon. One of the generic missions of the Euratom Treaty adopted in 1958 has been "to implement uniform security norms" among Member States.

- From a strategic point of view, it is difficult to discern whether the EU deems the potential dangers to nuclear security to be a risk or a threat. Furthermore, the most recent European decisions in this domain demonstrate a willingness to promote both nuclear security and nuclear safeguards activities, which are officially two different pillars within the IAEA. This is a holistic approach of the Agency's attributions: non-proliferation and nuclear security safeguards are the two sides of the same coin. They proceed from the need to promote the development of nuclear energy for peaceful purposes in ideal security conditions, whatever the nature of security risks.
- European states tend to favour using existing instruments and provisions, rather than creating new strategies or structures. States generally promote effective implementation of existing instruments in a coordinated and coherent fashion. This is the core of what Europeans term "effective multilateralism" and which is promoted by the EU Strategy Against Proliferation of Weapons of Mass Destruction of December 2003.
- The "all-risks' approach", or "the all hazards approach" (dealing simultaneously with intentional and natural risks) is an approach that links safety and security on the ground and it is the one that drives the most recent EU initiatives in the realm. This is true of the "NRBC package" of 133 practical measures adopted in November 2009 by the European Commission and equally of the Critical Infrastructure Protection directive adopted in December 2008. Implementation of the tools by Members States of the EU is another story but the approach remains discernible.

Vicente Garrido Rebolledo of the International Affairs and Foreign Policy Foundation (IAFPF) focused on the Global Initiative to Combat Nuclear Terrorism (GICNT) and viewed nuclear security in Europe in terms of nuclear terrorism. The mission of the GICNT is to strengthen global capacity to prevent, detect, and respond to nuclear terrorism by conducting multilateral activities that strengthen the plans, policies, procedures, and interoperability of partner nations. According to the GICNT mission statement, the group seeks to share, through multilateral activities and exercises, best practices and lessons learned in order to strengthen both individual and collective capabilities to combat the threat of nuclear terrorism. There is strong European involvement in the group. In fact, Spain, where IAFPf is based, serves as Coordinator of the Implementation and Assessment Group and is a regional leader for implementing the GICNT framework. Rebolledo noted that the GICNT specifically aims to:

1. Improve accounting, control, and protection of nuclear/radiological material
2. Enhance security of civilian nuclear facilities
3. Detect and suppress illicit trafficking of nuclear/radiological material

4. Improve ability to search for, confiscate, and establish safe control of nuclear/radiological material
5. Assure denial of safe haven and resources from terrorists seeking to acquire or use nuclear/radiological material
6. Ensure adequate legal frameworks to combat activity related to nuclear terrorism
7. Respond to and mitigate the consequences of nuclear terrorism
8. Promote information sharing to prevent and respond to acts of nuclear terrorism

While various working groups focus on specific areas related to nuclear security, Rebolledo outlined the main areas of concentration for the GICNT, which include: Illicit material trafficking; New and emerging detection technologies; Legal issues associated with illicit trafficking; Nuclear forensics; Material control and security; Physical protection measures; Emergency response and mitigation procedures; and Law enforcement cooperation.

Hans- Joachim Schmidt of the Peace Research Institute Frankfurt defined nuclear security predominately in terms of both the tactical and strategic nuclear weapons deployed in Europe and their security. He traced Europe's approach to nuclear security back to the end of the East-West Conflict when nuclear security was enhanced by the total disarmament of all U.S. and Soviet INF weapon delivery systems. Schmidt noted that the subsequent reductions by the United States and Soviet Union were supported by Germany, France and others, which unilaterally dismantled their land-based short range nuclear delivery systems. He also suggested that President George Bush and General Secretary Mikhail Gorbachev bolstered European nuclear security in 1991 when each made unilateral declarations on tactical nuclear weapons. Recent improvements in U.S.-Russian relations, as well as the conclusion of the New START accord, have also improved the general trend in nuclear security.

Despite the general unity among NATO members, perceptions of security challenges in Europe vary because of different historical experiences. According to Schmidt, constructs of nuclear security in Europe have also likely shifted with the expansion of both NATO and the EU. Prospects for NATO- Russia missile defense cooperation have improved, but any agreement in this area will have an impact on a future bilateral arms control agreement as well as conventional and nuclear forces in Europe. Schmidt suggested that in addition to the substance of these talks, the timing will be particularly interesting. 2012 will likely be an eventful year given the elections in the United States and Russia and the leadership change in China and elsewhere. Going forward, Europe's nuclear security will be determined, in part, by the success of NATO-Russian relations, as well as bilateral U.S.-Russian relations. Challenges in this area will likely spill over and impact the nonproliferation regime, the NPT and the prospects for conventional and nuclear disarmament in Europe.

Henry Sokolski of the Nonproliferation Policy Education Center posited that a discussion on Europe and nuclear security is incomplete without focusing on events that have unfolded over the past six months. He noted that the Fukushima Daiichi incident in Japan, the Arab Spring and the Stuxnet computer attacks in Iran all have security implications for Europeans. Calling Turkey Europe's "least integrated state," Sokolski suggested that Turkey's reaction to the discussion surrounding the possible removal of tactical nuclear weapons from Europe is important to monitor given the ambiguity surrounding Turkey's ambitions for its nuclear program. Turkey could stand to benefit and significantly bolster its regional status, Sokolski reasoned, if it pursued a nuclear weapons program at the same time tactical nuclear weapons were withdrawn from Europe.

Discussions surrounding Europe's nuclear security must account for the lessons learned in the wake of the Fukushima nuclear incident. Designs for civilian nuclear plants must be able to withstand both natural and man-made disasters and more attention needs to be paid to the vulnerability of such plants to terrorists or other hostile actors. According to Sokolski, "Insufficient cooling for one or two hours of the nuclear core of Europe's most popular nuclear power design - the light water reactor - can result in massive fuel failures, followed by possible radiological releases. Also, these systems' spent fuel ponds and that of other reactors and reprocessing facilities could potentially lose coolant and release major amounts of radioactivity. Natural disasters, terrorist and hostile states attacks, could induce such coolant losses by forcing the failure of critical electrical lines, plant software, transformers, back up diesels, key valves, coolant pumps, pond structures, etc. Such vulnerabilities put a premium on sound operation, design, and safe plant location."

Given the wide range of topics that each panelist covered, it is clear that there is no set definition or construct of nuclear security throughout Europe. While there appears to be general agreement as to what constitutes the nuclear security regime among most NATO and EU members in a technical sense, some variations exist, particularly in the political and diplomatic realm. More important than agreeing to a set definition, however, is how Europeans deal with these pressing issues going forward. The protection of nuclear materials, safe working conditions at nuclear facilities, tactical nuclear weapons, missile defense cooperation—and other such issues are all intrinsically linked to state security and will impact national, regional and global security constructs for years to come.

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