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# Panel 138: Science, Technology, and International Security

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Science and technology remain central to contemporary national and international security. New scientific and technological developments and innovations, such as drones, 3-D printing, AI, genome editing, and self-tracking devices are creating new public and governmental concerns about security. There also remain on-going international concerns about the threat posed by nuclear, chemical, and biological weapons, and related delivery systems. We seek papers that: describe the processes of knowledge making that are important in constructing and analyzing potential security threats and the broader implications of security mechanisms (such as regimes, frameworks, technologies, practices, and materialities); and that help to feed critical discussions about the way science and technology governance around security issues is designed, developed, implemented, and diffused in different contexts.

This panel seeks to bring together transnational STS scholars interested in the following questions: What are the various security narratives, discourses, institutions, and actors that surround these technologies? How can we understand the knowledge production behind these technologies and how they may (or may not) pose new kinds of security threats. How is this knowledge shaped by particular social, economic, and political contexts? How is information about security issues ignored, marginalized, or obscured? How do STS-informed scholars participate in expert and private deliberations about the risks and benefits of these technologies? We welcome papers that undertake topics historically, as well as in contemporary times, and call for projects that use a variety of methodically and theoretic approaches.

# Abstract

## From safety first towards security first?

### A co-productionist analysis of security technologies and processes within one Belgian critical infrastructure

In the aftermath of recent terrorist attacks in Europe, high-risk industries have dramatically increased their investments in security enhancement. Security technologies such as fences, infra-red security cameras, fingerprints recognition systems and security processes like access control procedure and the “four eyes” principle have emerged, thereby disrupting these industries’ traditional modes of functioning. Whereas these industries originally focused almost entirely on production and safety stakes, they now pay increasing attention to security. Topics such as terrorism, drones attacks, insider threats, cyber criminality gain traction. This research presents results of an examination of the significant increase of security technologies and processes implementation, and their impacts within a nuclear research center. Drawing on qualitative methods (interviews, focus groups and ethnographies), it analyzes (1) the basic assumptions and values that inform these security technologies and processes, and (2) how these technologies and processes participate to shape the organization’s security culture, but also on other cultures (such as safety, innovation or environmental cultures). It mobilizes the idiom of co-production and the concept of technological cultures to comprehend what cultural elements are transcribed within the security technologies and processes. Moreover, such an approach enables us to account for how security, safety and innovation cultures are co-produced by human, technologies and processes as well as how those cultures are mutually constituted. Practically, it permits to get a better grasp on the impacts such processes or technologies might have on security culture as well as on other organization’s cultures.

**Keywords**: Security, Technologies, Processes, High-risk industries, Co-production, Cultures, Safety