



Russia's Security Culture and WMD Proliferation

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Presented at:

**"Tomorrow's Proliferation Pathways: Weak States,
Rogues, and Non-States"**

July 17-18, 2008 Belfast, Maine

Center for International Trade & Security

School of Public and International Affairs | The University of Georgia

The Human Factor & Security Culture



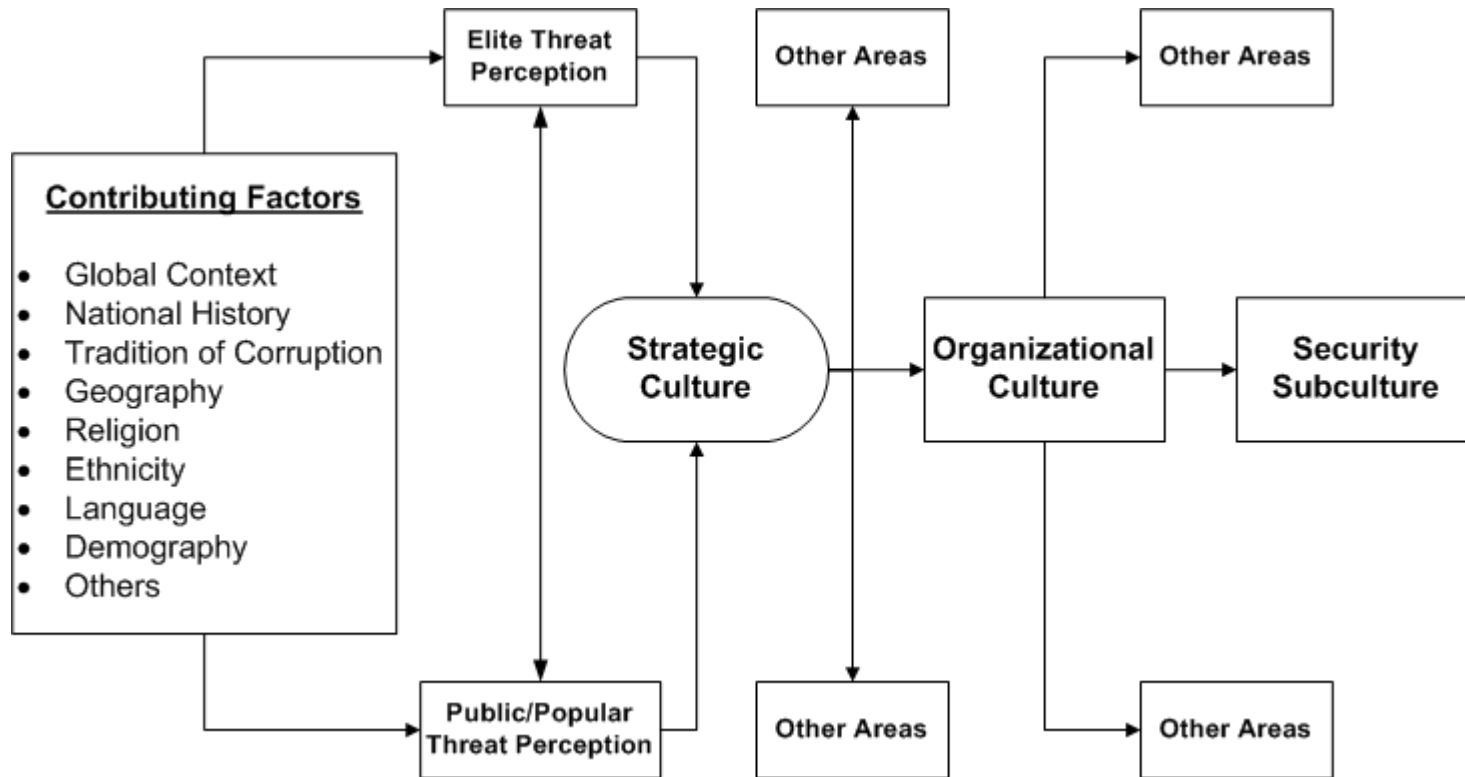
- *Security Culture* is a *human factor* based approach to improving security through more efficient human performance and interaction with systems, products, and the work environment.
- *Security Culture* is a vehicle to improve the *human factor* through a set of managerial, organizational and other arrangements that include not only the technical proficiency of the people entrusted with security but also their willingness and motivation to follow established procedures, comply with regulations, and take the initiative when unforeseen circumstances arise.

Why is Security Culture so Important in Russia?



- There are at least four groups of countries where raising the standard of security culture is urgently needed:
 - ✓ transitional societies;
 - ✓ countries whose nuclear and other sensitive programs lack transparency;
 - ✓ countries beginning nuclear and other sensitive programs from scratch;
 - ✓ countries where nuclear and other sensitive industries are undergoing reforms.

A Path Towards Security Culture



Three Tiers of Culture



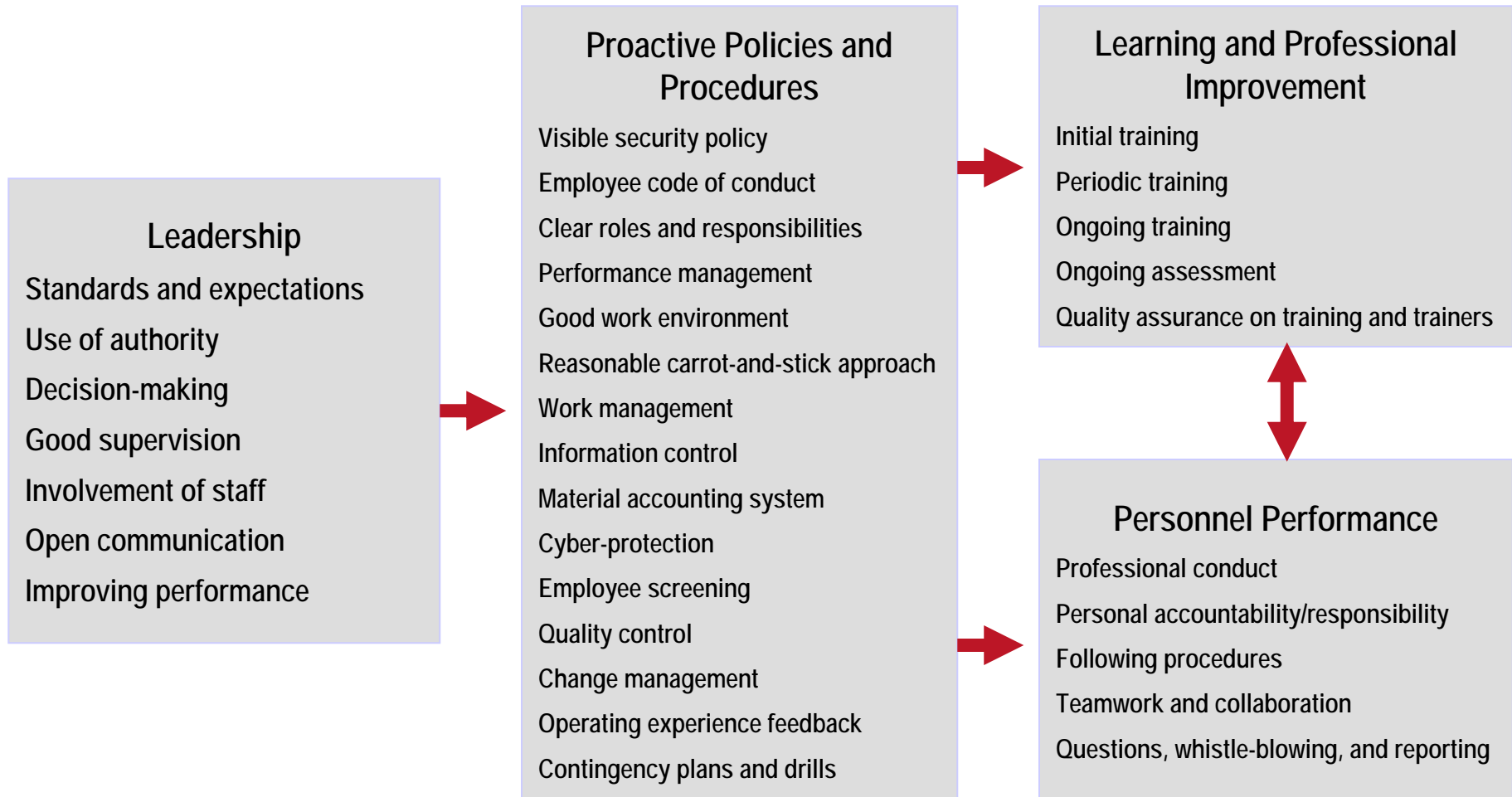
- *Strategic Culture* can be characterized as shared assumptions and decision rules that limit behavior choices and impose a degree of order on individual and group conceptions of their relationship to their *social, organizational, or political environment* (Alastair Iain Johnston).
- *Organizational Culture* is defined as a pattern of shared basic assumptions that the group learned as it solved the problems of *external adaptation and internal integration*, that has worked well enough to be considered valid, and therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems (Edgar Schein).
- *Security Culture* is a subset of organizational culture and constitutes an assemblage of individual and group values, attitudes, perceptions, competencies and patterns of behavior that determine the degree of individual and organizational *commitment to security* as well as the style and proficiency with which they manage security.

What is WMD Security?



The prevention and detection of, and response to, the theft, sabotage, unauthorized access, illegal transfer or other malicious acts involving chemical, biological, nuclear, and radioactive materials and substances or their associated facilities.

Model of Security Culture Mechanism: Management, Policy, Personnel, Training



Case Studies: Security Breaches & Unhealthy Security Culture



- The *Elektrokhimpribor Combine* in the closed city of Lesnoy, formerly known as Sverdlovsk-45, was involved in the theft of a large amount of rare and expensive isotopes (thallium-203, zinc-68, rubidium-87, and others)
 - The core of the conspiracy included nine employees who used their positions at the combine to produce “unaccounted for” isotopes beyond the officially reported production.
 - Because the conspirators worked at each stage of the production, they were able to establish a parallel isotope production process and account for used material as part of normal plant operations.

Case Studies: Security Breaches & Unhealthy Security Culture



- The *Elektrokhimpribor Combine* case (continued)
 - The conspiracy included the network or “sellers” outside Lesnoy and officials of the Ministry of Atomic Energy. The scheme was so well managed that it was discovered merely by an oversight on the part of the conspirators. They did not bother to hide their expensive cars and homes, which began to draw attention in such a small closed city.
 - In May 2000, a federal court found all members of the group guilty under article 160 of the Criminal Code, and sentenced them to three-year prison terms - less time than they had already spent in jail - thus prompting their release.

Case Studies: Security Breaches & Unhealthy Security Culture



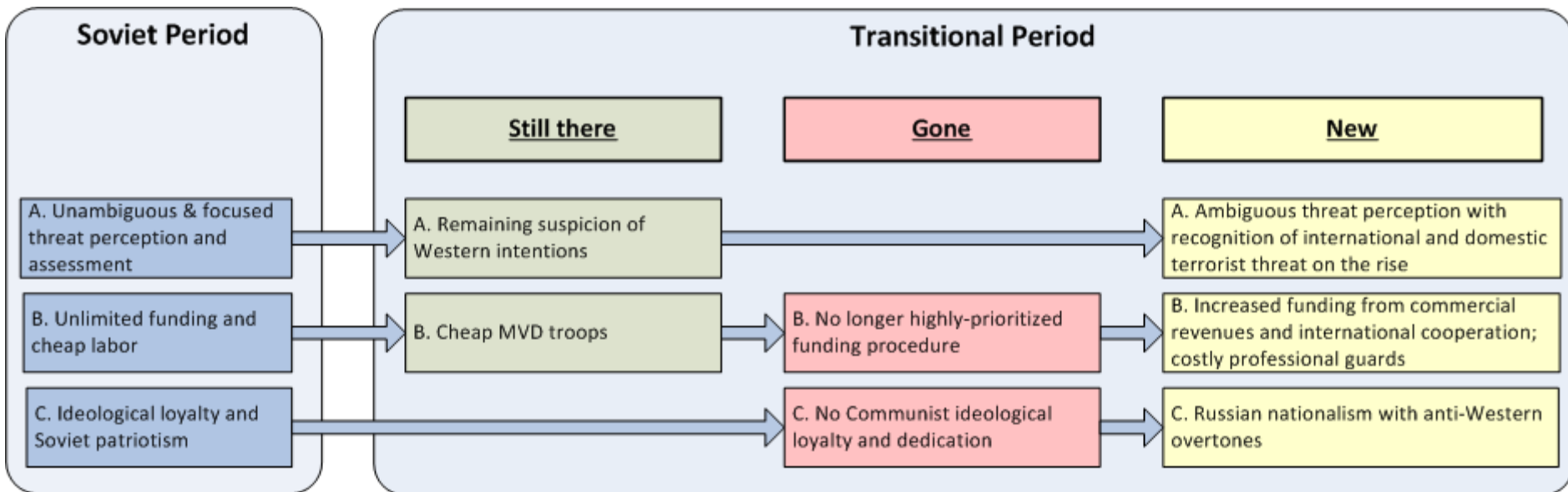
- At the *Prioksky Gold Refining Factory* near the small town of Kasimov, a total of 400kg of gold was found to be stolen.
 - Virtually everyone at the plant was involved in the conspiracy, ranging from operations personnel to security guards and management, including the deputy director and the head of a specially-appointed internal investigation unit.
 - During the refining process and electrolysis, a local engineer found a way to add extra quantities of copper to the process which did not affect the final product.

Case Studies: Security Breaches & Unhealthy Security Culture

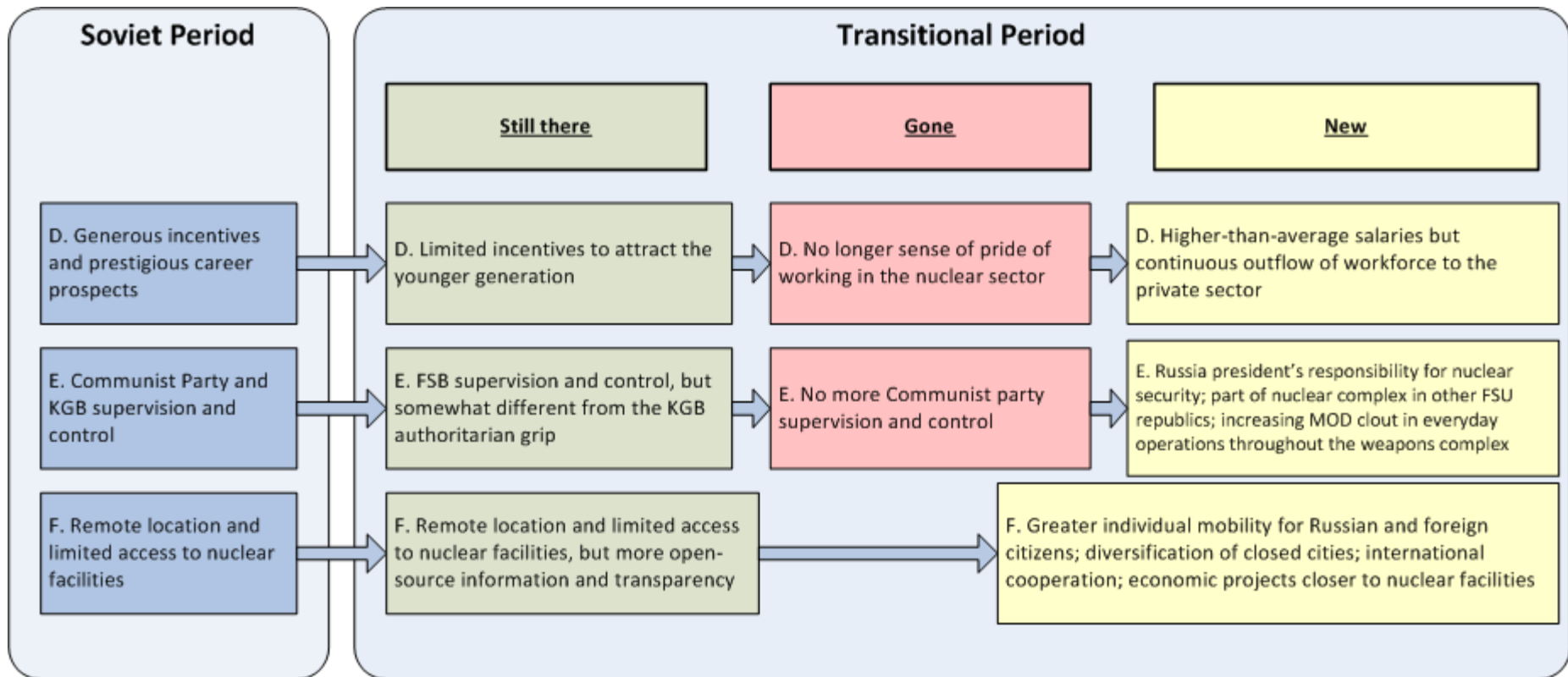


- The *Prioksky Gold Refining Factory* case (continued)
 - The two security perimeters included rows of barbed wire, a sand strip for intruder detection, and a system of security cameras and motion detectors. However, during security checks, security officers would turn off the metal detectors used to scan employees leaving the facility, while pretending to diligently carry out their duties.
 - It took investigators several years, after a string of assassinations and disappearances involving factory personnel, to fully understand the scope and scale of the conspiracy and its mechanism.

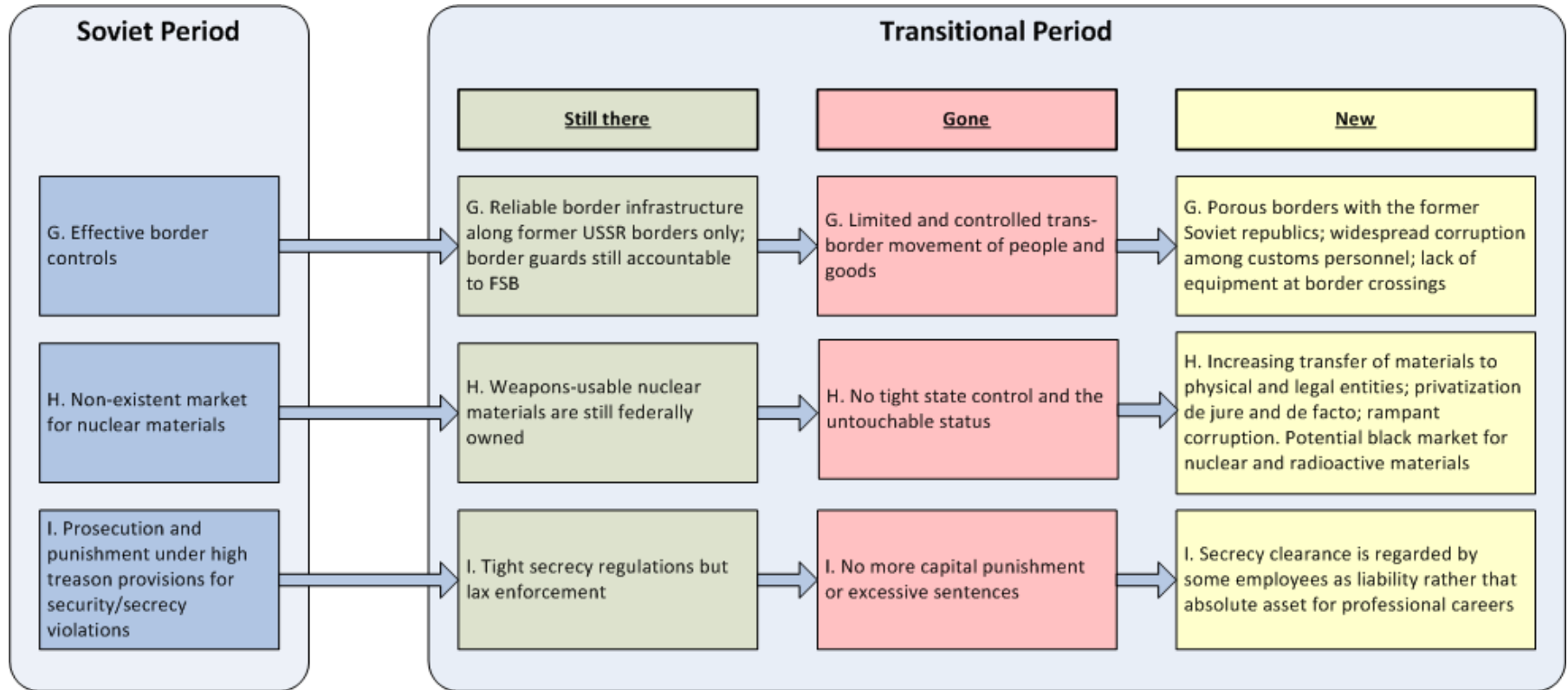
Factors Affecting Nuclear Security in the USSR and Russia



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Evolution of Soviet/Russian Security Culture



- **Economic and Social Challenges**
 - Insufficient funding
 - Aging infrastructure
 - Antisocial behaviors
 - Poor motivation

- **Industry-wide Problems**
 - Continuous restructuring
 - Interagency coordination
 - Privatization
 - Use of professional guards

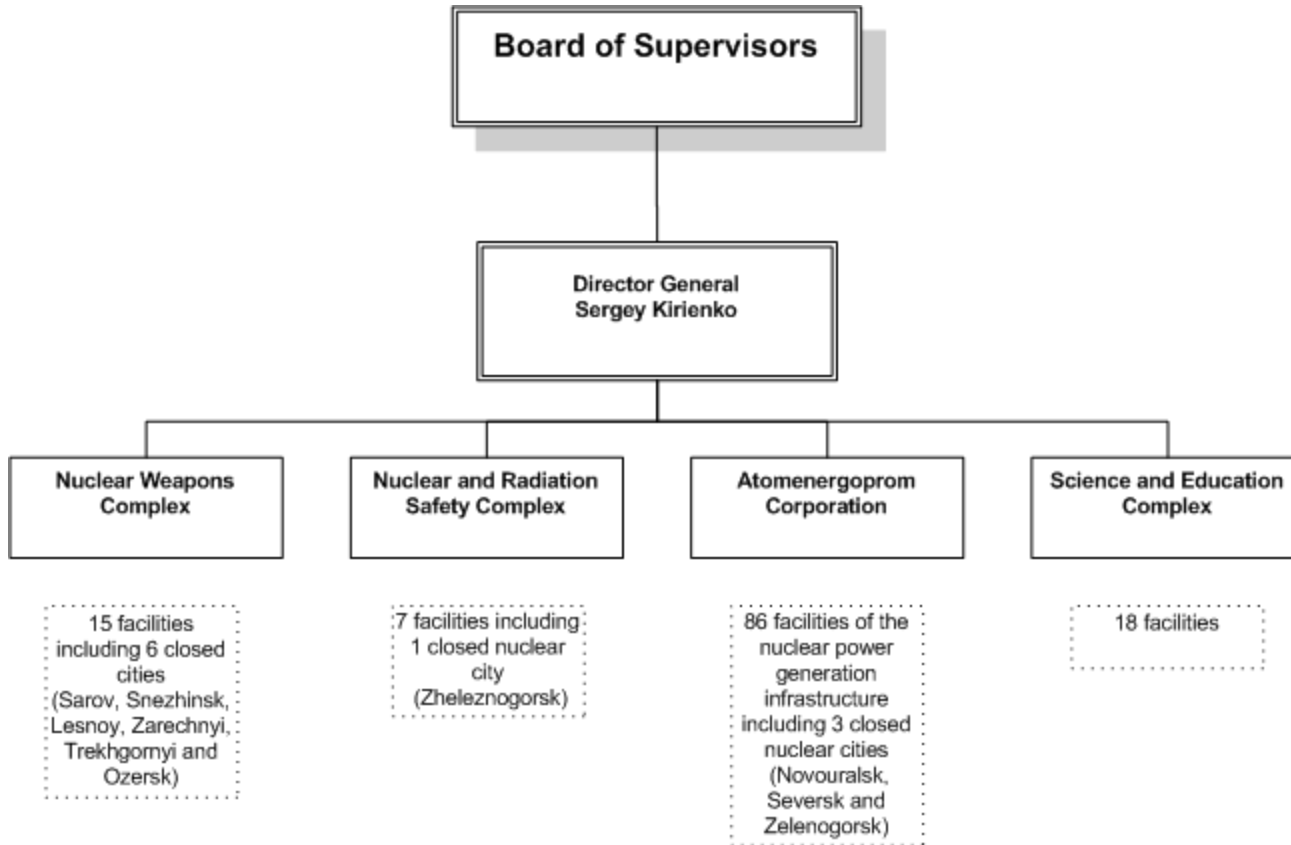
Evolution of Soviet/Russian Security Culture



- **Gaps in Professional and Work Culture**
 - Aging Workforce
 - Quality of Leadership
 - Lack of Transparency
 - Inadequate Job Description
 - Whistle-Blowing

- **Legal and Enforcement Issues**
 - Incomplete Legal Basis
 - Russian Legal Culture
 - Poor Investigation Procedures
 - Vague Reporting Practices
 - Lax Prosecution

ROSATOM Corporation: New Organizational Chart



A Path Towards Security Culture

