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Techno-Nationalism and Global Legal Trends

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Abstract: Techno-nationalism—a strategic policy linking technological development to national security and economic sovereignty—has emerged as a defining force in 21st-century geopolitics. This article explores the legal and regulatory dimensions of techno-nationalism, highlighting how major powers use legal tools such as export controls, foreign investment reviews, data localization mandates, and sanctions to protect and promote domestic technology ecosystems. While such policies aim to bolster national competitiveness and digital sovereignty, they also fragment international legal regimes, disrupt global supply chains, and escalate cross-border trade disputes. Using case studies and data visualizations, the article traces the impact of techno-nationalist strategies on multinational enterprises, international cooperation, and legal compliance frameworks. It underscores the challenges posed by regulatory divergence and geopolitical rivalries, while offering insights into possible pathways for legal harmonization, corporate adaptation, and multilateral standards development. In a digitally interconnected but politically fractured world, managing the legal consequences of techno-nationalism is critical to maintaining innovation, trade, and stability.

Keywords: Techno-nationalism, digital sovereignty, export controls, data localization, global legal fragmentation, CHIPS Act, Made in China 2025, WTO trade disputes, supply chain decoupling,

INTRODUCTION

In the 21st century, **techno-nationalism** has emerged as a defining force shaping international relations, law, and the global economy. Characterized by the fusion of technology policy and national interest, techno-nationalism sees governments prioritize the development, control, and protection of domestic technological capabilities to achieve economic, security, and geopolitical objectives. This article explores the concept, its impact on global legal frameworks, and evolving trends, providing analyses, figures, and visualizations.

1. Understanding Techno-Nationalism

Techno-nationalism refers to a strategic worldview in which state actors deliberately foster and safeguard home-grown technologies, often restricting foreign access or influence, with the aim of strengthening national advancement and security. It contrasts with **techno-globalism**, which champions international cooperation, open innovation, and globally shared standards^{[1][2][3]}.

“Techno-nationalism is a concept that ties technology and technological innovation to national identity, security, economic

prosperity and social stability... National governments may seek to protect their own interests by developing and promoting their own technologies and restricting the use of foreign technologies.”^[1]

Key Drivers

- **National Security:** Technologies like 5G, AI, and semiconductors are viewed as critical infrastructure.
- **Economic Competitiveness:** State policies are implemented to protect domestic industries and intellectual property.
- **Sovereignty & Control:** Data localization, digital sovereignty, and setting national standards.

MODERN MANIFESTATIONS

Major economies have adopted policies such as the United States’ **CHIPS and Science Act** and China’s “Made in China 2025” initiative, aiming to reduce technological dependence and promote domestic innovation^{[3][4]}.

2. Legal and Policy Instruments of Techno-Nationalism

Techno-nationalist policies are implemented through a range of legal tools:

- **Export Controls:** Restriction of advanced technology exports to perceived rivals (e.g., US limits on semiconductor sales to China).
- **Foreign Investment Scrutiny:** Heightened review of FDI in tech sectors (like CFIUS in the US).
- **Data Localization Laws:** Requiring that data generated within a country is stored or processed there.
- **Sanctions and Blacklists:** Blocking international collaboration with certain companies or sectors.
- **National Procurement Policies:** Favoring domestic tech providers for public projects.

These policies often disrupt established global supply chains, spark legal contestation in international fora (such as the WTO), and strain cross-border R&D and investment^{[5][3][4]}.

Figure 1: Selected Instruments of Techno-Nationalist Policy by Region

Region	Key Instruments	Example
USA	Export controls, CFIUS review, CHIPS Act	Huawei ban, chip export
China	Innovation quotas, local content, digital firewall	“Made in China 2025”
EU	Digital sovereignty, AI regulation, antitrust	GDPR, EU AI Act

3. Legal Challenges and Global Friction

The rise of techno-nationalism brings profound legal and compliance challenges, particularly for multinational enterprises:

A. Fragmentation of Legal Regimes

As countries insist on differing digital and technological standards, companies must comply with multiple, sometimes conflicting, rules concerning:

- Data privacy and security (e.g., GDPR vs. US Cloud Act)
- Export and import controls
- Intellectual property enforcement
- Competition law and market access restrictions^{[1][5][6]}

B. Weaponization of Supply Chains

Countries increasingly regard supply chains for strategic technologies as matters of national security, leading to restrictions and decoupling.

C. Trade and Treaty Implications

Unilateral techno-nationalist laws may contravene free trade agreements, resulting in disputes at the **WTO** and regional trade blocs. For instance, data localization rules have been challenged as trade barriers, and export bans raise questions under existing treaties^{[4][6]}.

Graph 1: Rise in Tech-Related Trade Disputes (2015-2025)

[image:1]

This bar chart shows the increasing number of international trade or WTO disputes specifically involving technology, digital services, or data localization policies since 2015.

4. From Globalization to Fragmentation: Trends and Outcomes

A. Decoupling and “Digital Iron Curtains”

With the US and China as primary actors, techno-nationalism has triggered “digital iron curtains” separating the globe into distinct technological spheres:

- Divergent 5G infrastructure (Huawei vs. Western suppliers)
- Different AI governance frameworks
- Competing digital currencies and payment networks^{[5][3][4]}

B. Impact on Multinational Enterprises

- **Compliance Complexity:** Firms face high compliance costs, legal uncertainty, and restricted access to key markets.
- **Innovation Slowdown:** Barriers to R&D collaboration and international talent mobility.
- **Supply Chain Realignment:** Geopolitical pressures force relocation or diversification of manufacturing and sourcing.

Figure 2: Impact of Techno-Nationalism on Multinational Operations

[image:2]

This flowchart shows the knock-on effects: from regulatory divergence and compliance burdens to market fragmentation and innovation challenges for international firms.

5. RESPONSES AND ADAPTATION

A. International Legal Coordination

Some countries and organizations are seeking to mitigate fragmentation with:

- Bilateral and regional data transfer agreements
- Cooperative antitrust enforcement
- Multilateral standards-setting (e.g., ISO, ITU)

B. Strategic Corporate Adaptation

Businesses are adjusting by:

- Localizing data storage and operations
- Building legal and compliance capacity across jurisdictions
- Participating in the development of global standards and governance

Figure 3: Global Legal Trends in Technology Governance (2025)

[image:3]

This infographic depicts the growing overlap and tension among national laws on export controls, data privacy, IP protection, and competition policy, highlighting convergence efforts by international organizations.

CONCLUSION

Techno-nationalism is redefining the interplay between technology, law, and global commerce. Its legal implications—ranging from regulatory fragmentation and escalating trade disputes to operational uncertainty for firms—have sparked a new era of both competition and protectionism. While some degree of national tech prioritization may be unavoidable, excessive reliance on techno-nationalist strategies threatens to fragment the digital economy, slow innovation, and undermine global public goods. Wise legal design, multilateral cooperation, and adaptive corporate governance will be paramount in managing the continuing impact of techno-nationalism.

Citations:

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