

# The Dilemma of European Critical Infrastructure Policy

**: Geopolitics, Integration, and the 5G Regulatory Paradox**

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**European Union**

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# The Vulnerability of a Hyper-Connected Society

## The Kakao Data Center Fire, 2022



Source: Aju News (2022)



Source: The Hankyoreh (2022)

# The Three Hypotheses

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**H1**

The Politicization of Infrastructure

**H2**

The Functional Spillover in EU Integration

**H3**

The Security-Economy-Technology Nexus

# The Politicization of Infrastructure

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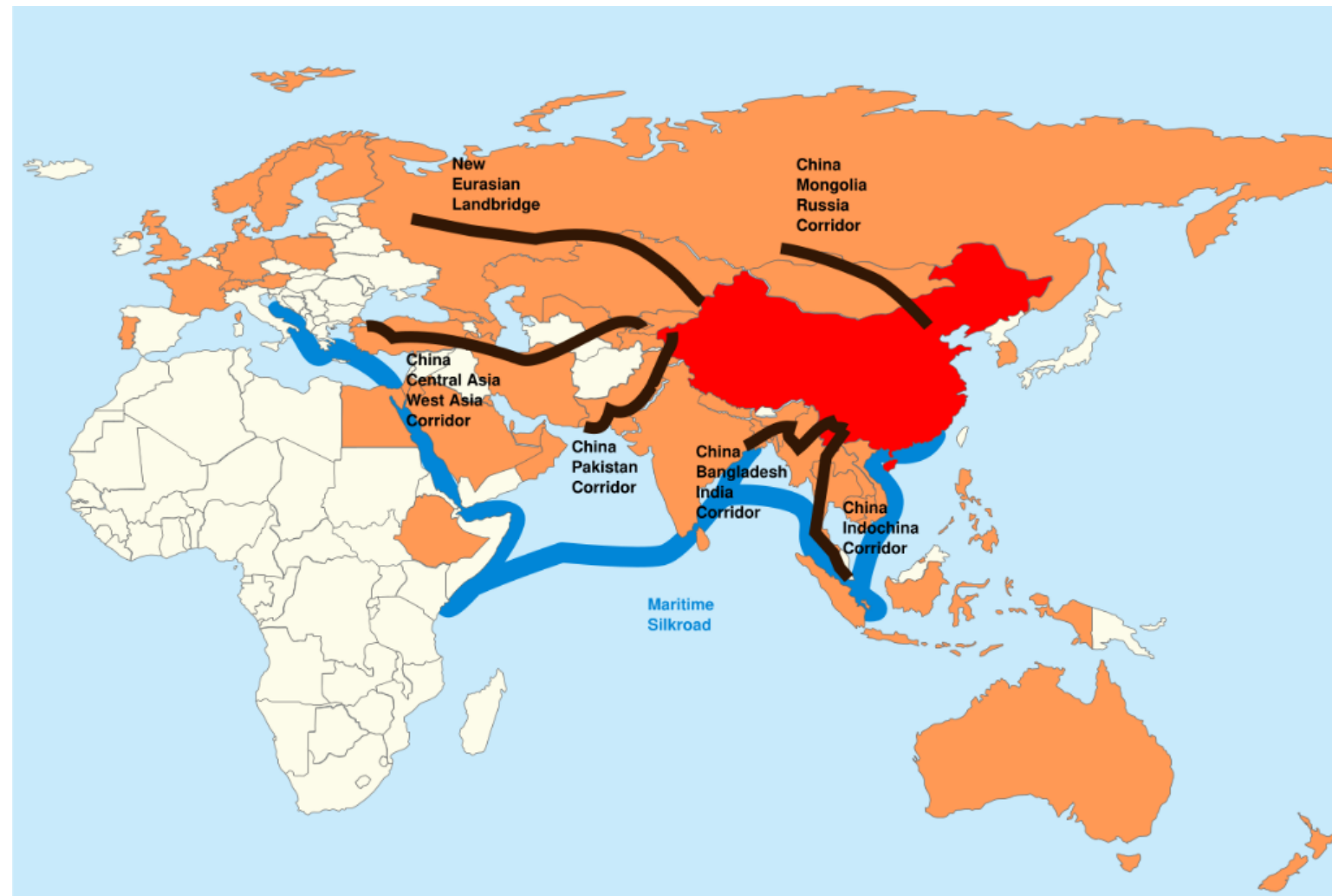
→ In Europe, connectivity infrastructure is increasingly being securitized and politicized into a 'geo-economic asset' rather than remaining a purely technical object.

H1

# Infrastructure as a Geopolitical Weapon

## The Threat

### China's BRI



Source: Wikimedia Commons

## The response

### Europe's Strategic Autonomy



Source: Wikipedia (2024)

# The Functional Spillover in EU Integration

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→ Enhancing Critical Entity Resilience (CER) drives functional integration, gradually shifting member states' traditional security mandates toward supranational joint regulation.

H2

# From Protection to Resilience: The Spillover

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## 2008 ECI Directive

<b>Goal</b>	Protection
<b>Scope</b>	2 Sectors (Energy, Transport)
<b>Target</b>	Facilities (Physical assets)



## 2022 CER Directive

<b>Goal</b>	Resilience
<b>Scope</b>	10 Sectors (Digital, Health, Space, etc.)
<b>Target</b>	Entities (Operators)

# The Security–Economy– Technology Nexus

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→ European infrastructure policy is evolving into a complex nexus, where commercial single-market logic and state cybersecurity imperatives structurally collide.

H3

# The Regulatory Paradox in 5G

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## Security vs Innovation



**State Security  
(Lex Huawei)**

**Market Innovation  
(Telecom Operators)**



# Conclusion

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**H1 (Cause)**

Geopolitical Weaponization

**H2 (Response)**

Supranational Integration & Resilience

**H3 (Result)**

The Regulatory Paradox

# Policy Implications

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## Public-Private Risk Sharing



# Discussion Questions

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- 1. Should infrastructure be treated as a geopolitical asset, or should it remain a purely technical and economic domain?**
- 2. Does the expansion from ECI (2008) to CER (2022) strengthen the EU, or does it undermine national sovereignty?**
- 3. How should the EU balance security requirements with market innovation in cases like 5G regulation?**