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Economic security starts at home – Introducing an inclusive geoeconomics strategy for Germany

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DIALOG. IMPULSE. HALTUNG.

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Executive summary

This report argues that Germany's approach to economic security should move beyond its current narrow focus. It is based on research conducted as part of the "Inclusive Geoeconomics" project at the Bundeskanzler-Helmut-Schmidt-Stiftung, which ran from late 2024 to mid-2026. The qualitative research project consisted of 25 expert interviews, policy analysis and an extensive literature review. These provide the foundation for the report's analytical framework for understanding how economic security can be more coherently implemented across different levels of governance and policy fields. Its findings and recommendations are directed primarily at German public officials at the federal, state and local levels who are responsible for translating European economic security objectives into domestic policy.

To bridge the gap between high-level strategy and domestic implementation, this report makes three principal contributions to the current debate:

- First, it offers conceptual clarification by distinguishing economic security as the overarching policy objective and inclusive geoeconomics as the strategy by which to achieve it. Moving beyond trade protection or technological sovereignty, the report introduces a four-dimensional model of economic security that systematically balances economic performance, strategic sovereignty, societal well-being and ecological sustainability.
- Second, it demonstrates that the societal dimension of economic security is a strategic requirement rather than a normative add-on. Domestic legitimacy and social cohesion are vital forms of strategic capacity; if the domestic costs of geoeconomic resilience are unfairly distributed, they generate political alienation and weaken the democratic fabric. An inclusive approach secures a "resilience dividend", making workforces more adaptable, communities less vulnerable to external coercion and policies more sustainable over time.
- Third, it provides practical guidance for German policymakers operating within the EU's multi-level governance system. Because European economic security goals must be operationalised nationally, regionally and locally, the report introduces the inclusive geoeconomics checklist as an actionable tool. This five-step checklist is meant to help officials assess whether a geoeconomic measure balances the four dimensions of economic security, includes relevant stakeholders, mitigates distributional effects, fits the institutional set-up, and contributes to long-term resilience.

How policymakers can make use of the checklist is illustrated through two case studies that capture two different dimensions of Germany's geoeconomic exposure. First, the Port of Hamburg is analysed as a critical infrastructural

node where trade, logistics, labour, urban politics and climate adaptation intersect. Then, Germany's EV sector is examined as a dispersed industrial value chain in which technological change, Chinese competition, raw-material dependence, digital vulnerability and regional adjustment pressures converge. Together, the two cases show that economic security cannot be secured through defensive trade instruments alone. It depends on domestic coordination, place-based resilience and public legitimacy.

The Port of Hamburg case shows that infrastructure security is not only a matter of physical protection. The port's resilience equally depends on digital sovereignty, labour stability, climate adaptation, reliable energy supplies and coordinated governance between the EU, the federal government, the city of Hamburg and local stakeholders. The EV case points to a similar pattern in a different setting: the transition to electric mobility is a technological, societal and ecological challenge with major implications for workers, suppliers, regional economies and Germany's future strategic position in critical value chains. In both cases, the report finds that fragmented governance and narrowly technocratic responses risk displacing vulnerabilities rather than resolving them.

The findings from the two case studies are then used to translate the inclusive geoeconomics checklist into specific recommendations to German policymakers. In the first case, the report recommends aligning the Port of Hamburg's infrastructure policy with labour stability, urban legitimacy and long-term ecological adaptation. In the second, it recommends to officials working on EV policy to link industrial policy and de-risking to regional adjustment, stakeholder coordination and long-term industrial renewal. These two examples illustrate how the five-step checklist can be operationalised in different settings while generating lessons that are transferable across sectors and levels of governance.

The report's overarching recommendation is that German policymakers should review every major geoeconomic measure using the five-step inclusive geoeconomics checklist prior to implementation in order to better internalise the resilience dividend of inclusive geoeconomics. This will not slow down economic security policy; it will make it more coherent, more legitimate and more resilient over time.

Zusammenfassung

Dieser Bericht plädiert dafür, den derzeit verengten Fokus der deutschen Debatte über wirtschaftliche Sicherheit strategisch aufzubrechen. Er basiert auf Forschungsergebnissen des Projekts „Inklusive Geoökonomie“ der Bundeskanzler-Helmut-Schmidt-Stiftung (Laufzeit: Ende 2024 bis Mitte 2026). Das qualitative Forschungsdesign verbindet 25 Expert:inneninterviews mit fundierter Politikanalyse und einer umfassenden Literaturauswertung. Auf dieser Basis entwickelt der Bericht einen analytischen Rahmen, wie wirtschaftliche Sicherheit kohärent über verschiedene Governance-Ebenen und Politikfelder hinweg operationalisiert werden kann. Die Befunde und Handlungsempfehlungen richten sich primär an die politisch-administrativen Akteure auf Bundes-, Landes- und kommunaler Ebene, die europäische Vorgaben zur wirtschaftlichen Sicherheit in nationale Politik übersetzen müssen.

Um die Schnittstelle zwischen europapolitischer Strategie und innenpolitischer Implementierung zu schließen, leistet dieser Bericht drei zentrale Beiträge zur Debatte:

- Erstens bietet er eine konzeptionelle Schärfung, indem er wirtschaftliche Sicherheit als übergeordnetes Ziel und inklusive Geoökonomie (inclusive geoeconomics) als Strategie voneinander abgrenzt. So führt der Bericht ein vierdimensionales Verständnis von Wirtschaftssicherheit ein, das wirtschaftliche Leistungsfähigkeit, strategische Souveränität, gesellschaftliche Wohlfahrt und ökologische Nachhaltigkeit systematisch miteinander verzahnt.
- Zweitens weist der Bericht nach, dass die gesellschaftliche Dimension von Wirtschaftssicherheit eine strategische Notwendigkeit darstellt. Innenpolitische Legitimität und sozialer Zusammenhalt sind Kernbestandteile staatlicher Handlungsfähigkeit. Werden die Transformationskosten geoökonomischer Resilienz ungleich verteilt, drohen politische Entfremdung und eine Schwächung des demokratischen Gefüges. Ein inklusiver Ansatz sichert hingegen eine „Resilienzdividende“ (resilience dividend): Er erhöht die Anpassungsfähigkeit von Beschäftigten, verringert die Verwundbarkeit von Kommunen gegenüber externem Druck und stärkt die langfristige Tragfähigkeit politischer Maßnahmen.
- Drittens liefert der Bericht eine praxisnahe Orientierungshilfe für die deutsche Politik im europäischen Mehrebenensystem. Da europäische Vorgaben zur Wirtschaftssicherheit vor Ort operationalisiert werden müssen, führt der Bericht eine praxisorientierte „Inklusive Geoökonomie-Checkliste“ ein. Die fünf Schritte der Checkliste unterstützt Entscheidungsträger:innen dabei zu prüfen, ob eine geoökonomische Maßnahme die vier

Dimensionen von Wirtschaftssicherheit austariert, relevante Stakeholder einbindet, Verteilungseffekte abfedert, institutionelle Zuständigkeiten achtet und zu langfristiger Resilienz beiträgt.

Die praktische Anwendung dieser Checkliste wird anhand von zwei Fallstudien veranschaulicht, die unterschiedliche Aspekte der geoökonomischen Verwundbarkeit Deutschlands abbilden. Erstens wird der Hamburger Hafen als kritischer infrastruktureller Knotenpunkt analysiert, an dem Außenhandel, Logistik, Transformation der Arbeitswelt, Kommunalpolitik und Klimaanpassung miteinander verschränkt sind. Zweitens wird der deutsche Automobilsektor (E-Mobilität) als dezentrale industrielle Wertschöpfungskette untersucht, in der technologischer Wandel, geoökonomische Konkurrenz mit China, Rohstoffabhängigkeiten, digitale Vulnerabilitäten und regionaler Strukturwandel konvergieren. Beide Fälle verdeutlichen: Wirtschaftliche Sicherheit lässt sich nicht allein durch defensive handelspolitische Schutzinstrumente herstellen. Sie entspringt interner Koordinationsfähigkeit, regionaler Resilienz und gesellschaftlicher Legitimität.

Der Fall des Hamburger Hafens zeigt, dass Infrastruktursicherheit weit über physischen Schutz hinausgeht. Die Resilienz des Knotens hängt komplementär von digitaler Souveränität, stabilen Arbeitsbeziehungen, ökologischer Anpassung, sicherer Energieversorgung und einer integrierten Governance zwischen der EU, dem Bund, der Freien und Hansestadt Hamburg sowie lokalen Akteuren ab. Der Automobilsektor weist im industriellen Kontext ein analoges Muster auf: Der Übergang zur Elektromobilität ist eine technologische, gesellschaftliche und ökologische Gestaltungsaufgabe mit massiven Auswirkungen auf Beschäftigte, Zuliefernetzwerke, regionale Wirtschaftsstrukturen und Deutschlands künftige Position in kritischen Wertschöpfungsketten. In beiden Fällen warnt der Bericht vor fragmentierten Zuständigkeiten und rein technokratischen Antworten, da diese Verwundbarkeiten lediglich verlagern statt sie strategisch zu lösen.

Die empirischen Befunde der Fallstudien werden genutzt, um die Inklusive Geoökonomie-Checkliste in konkrete Handlungsempfehlungen für die deutsche Politik zu übersetzen. Für den Hamburger Hafen wird empfohlen, die maritime Infrastrukturpolitik strikt mit Arbeitsplatzstabilität, städtischer Akzeptanz und langfristiger ökologischer Transformation zu harmonisieren. Für die Automobilpolitik wird empfohlen, Industriepolitik und De-Risking systematisch mit regionaler Strukturförderung, zivilgesellschaftlicher Koordination und industrieller Erneuerung zu verknüpfen. Beide Beispiele zeigen, wie die fünf Schritte der Inklusiven Geoökonomie-Checkliste in unterschiedlichen Sektoren operationalisiert werden können.

Die übergreifende Empfehlung des Berichts lautet, dass vor jeder größeren geoökonomischen Maßnahme und ihrer Implementierung die Inklusive Geoökonomie-Checkliste angewandt werden sollte, um die „Resilienzdividende“ einer inklusiven Wirtschaftspolitik strategisch zu verinnerlichen. Ein solches Vorgehen verlangsamt das Handeln nicht; es macht die wirtschaftliche Sicherheitspolitik kohärenter, demokratisch legitimierter und krisenfester.

1. Introduction

For decades, the international economic order was guided by the attempt to maximise market efficiency. In this golden era of globalisation, trade was largely decoupled from security policy, and global interdependencies, rather than being seen as vulnerabilities, were viewed as part of the "peace dividend". This era has definitively ended. A series of systemic shocks—ranging from the COVID-19 pandemic to the escalation of trade conflicts under the Trump administration and, most recently, to the wars in the Middle East—has exposed the fragility of this model. In today's age of polycrisis, economic dependencies are being instrumentalised as strategic weapons, forcing Germany and Europe to fundamentally reassess their role in an increasingly contested global environment.

Both Berlin and Brussels have come to embrace the new paradigm of economic security. However, the current debate surrounding this term remains heavily skewed toward a narrow, technocratic understanding of the broader geoeconomic turn. While policymakers focus on securing semiconductor supply chains and diversifying raw material imports, they risk overlooking societal cohesion as the real foundation of any resilient strategy, with resilience taken to mean the ability of societies to withstand external pressures while maintaining their core functions.

A geoeconomic strategy focused exclusively on technological sovereignty and military capabilities is prone to fail. If the costs—whether through higher consumer prices, industrial restructuring or fiscal reallocation—are unevenly distributed, they are bound to generate social friction and political alienation, which can serve to fuel populist backlash. Thus, a geoeconomic strategy that fails to address such distributive domestic tensions itself risks becoming a long-term security risk.

Economic security begins at home. Taking this insight as its point of departure, the current report introduces the concept of inclusive geoeconomics. Inclusive geoeconomics is a strategy that ensures that the policy goal of economic security is achieved through measures based on domestic legitimacy, not merely pursued as a reflexive response to external pressures. It takes into account distributional effects, stakeholder involvement, multi-level governance, sustainability and strategic trade-offs. In doing so, it reframes economic statecraft from a function of reactive risk management into a practice of strategic resilience-building.

Inclusive geoeconomics as proposed in this report promises a resilience dividend: when societal cohesion reinforces geoeconomic capacity, states gain strategic advantages—higher productivity from supported workforces, less vulnerability to coercion as a result of cohesive communities and sustainable policies that survive political cycles.

Against this background, the guiding research question is: How can the EU accomplish economic security while at the same time enhancing economic justice? To answer this question, the report combines qualitative empirical research with policy analysis to generate practice-oriented insights. Given the lack of a consistent definition of economic security, the research examines how different actors understand, prioritise and operationalise the concept in practice before conceptualizing the inclusive geoeconomics strategy.

The findings and conclusions of the report are based on a triangulation of qualitative sources: an extensive literature review, six virtual expert discussions organised between May and July 2025 and 25 semi-structured expert interviews with 27 interviewees conducted between June 2025 and April 2026.[1] The interviewees included policymakers at the local, regional, national and EU levels, as well as representatives from academia, business and civil society.[2] Interview partners were selected via snowball sampling, enabling access to wider actor networks within the field of economic security across different stakeholder groups and levels of governance.

The report proceeds as follows: Chapter 2 introduces the four-dimensional model of economic security, the conceptual framework of inclusive geoeconomics and the inclusive geoeconomics implementation checklist. To illustrate how these concepts play out in reality, the report then examines two cases where global geoeconomic competition intersects with local economies and labour. The first case focuses on the Port of Hamburg as a key trade hub within a city of 1.9 million residents (Chapter 3). The second case analyses Germany's electric vehicle sector and how the global technology race affects workers and transnational value chains (Chapter 4). Building on both case studies, Chapter 5 develops broader policy recommendations for German policymakers. Chapter 6 presents the conclusion and argues that economic security is not only determined at the negotiating table or in supply chain strategy, but it is a lived and localised experience.

1 The interviews were conducted predominantly in virtual format and all interviews were transcribed and anonymised. As economic security lacks a consistent definition, the interview guide was designed to capture experts' own understandings and prioritisation of the concept and their relation to it in professional practice. If relevant, it also included specific questions related to the case studies on ports and EVs. Interview transcripts were analysed using a qualitative coding approach, whereby segments of text were systematically assigned to thematic categories (e.g. definitions of economic security, dimension of economic security, stakeholder engagement). Coding decisions were developed and refined iteratively between the co-authors to ensure consistency, with new categories added where necessary to capture emerging themes. Given the interpretive nature of this approach, the findings are analytically grounded but not statistically generalisable; they reflect the perspectives of the authors and selected interviewees while offering transferable insights for policy debates on economic security. See: Rädiker, Stefan/Kuckartz, Udo (2020). Focused Analysis of Qualitative Interviews with MAXQDA. Step by Step. Berlin, MAXQDA Press.

2 The authors would like to thank all interview partners for their valuable insights and their willingness to contribute to this research.

2. Inclusive geoeconomics: a strategy for achieving economic security

In recent years, economic security has emerged as a key concept in German and European politics. A succession of systemic shocks has demonstrated that economic integration is no longer an unambiguous asset. In this new geoeconomic environment, interdependencies—if weaponised—can pose immediate security risks. Yet, geoeconomics is not simply about risk management. Rather, it concerns a broader reorientation of how economic policy is used as a tool of power.[3]

Despite this "geoeconomic turn" and its rapid institutionalisation at the EU level, there is a profound lack of conceptual consensus among policymakers and experts.[4] The conducted interviews highlight this fragmented landscape. The experts' answers varied widely when they were asked about their understandings of economic security, as illustrated in Figure 1. While 20 interviewees attempted to define economic security, four rejected a definition altogether. Public officials and academics, for example, often describe it as an ambivalent "fighting term" *(Kampfbegriff)* or a "fuzzy academic concept" that lacks a stable institutional anchor.[5] This report seeks to address this lack of conceptual consensus by proposing an analytical framework that clearly distinguishes between economic security as the policy objective and geoeconomics as the strategy.

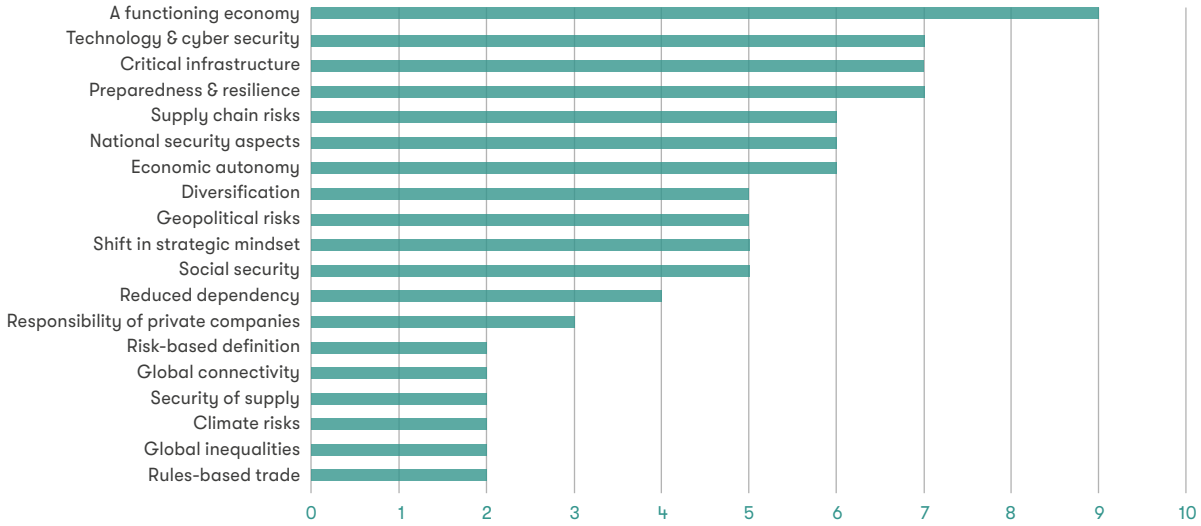

Figure 1: Expert perspectives on the definition of economic security: *Frequency of core themes identified across 24 qualitative interviews with German public officials and geoeconomic experts (multiple responses permitted).*

3 Mohr, Cathrin/Trebesch, Christoph (2025). Geoeconomics. IFW Kiel Working Paper 2279. All internet sources were last accessed on 12 June 2026.

4 Weinhardt, Clara/Ville, Ferdi de (2024). The Geoeconomic Turn in EU Trade and Investment Policy: Implications for Developing Countries. Politics and Governance 12.

5 Interviews BUS-A-7, business representative and DE-A-5, German civil servant

The policy objective: a four-dimensional model of economic security

Economic security as a new paradigm

The transition from a focus on market efficiency to a paradigm of economic security marks a fundamental shift in the European political landscape. For decades, the guiding principle of the international economic order and EU economic policy was the maximisation of efficiency through globalisation, where trade was largely decoupled from security policy. This era was predicated on the "peace dividend"—the belief that economic interdependence would prevent conflict. However, this model became fragile as a result of a succession of systemic shocks and the EU's reactions to them.[6] As one EU official noted, the "market is unable to have a long-term view" on systemic risks like the "China shock" or climate change because the current economic system is not built for long-term planning.[7]

In this new age of geoeconomics, global economic networks are not neutral; they are characterised by asymmetries that can be "weaponised".[8] When central nodes in international financial, trade, energy or information networks are controlled by a single state, interdependence becomes a tool for coercion rather than a guarantee of stability. A core aspect of economic security is thus the ability to influence or control strategic points in global value chains, knowledge production and infrastructure networks.[9]

To respond to the advent of "weaponised interdependence", the EU and its member states have shifted toward a more securitised economic policy. In 2023, the EU Commission introduced its Economic Security Strategy, which was further developed in the Commission's 2025 policy communication 'Strengthening EU Economic Security'.[10] The EU's working definition understands economic security as the ability of a state or group of states to maintain an economy that, despite global geopolitical tensions, can prove resilient to the risks of an interdependent global economy while at the same time preserving their strategic freedom of action. The EU's overarching goal is to strike a balance between openness and security. Thus, it explicitly understands economic security not as a purely economic concept, but

6 Knight, Malcolm D./Villanueva, Delano/Loayza, Norman (1995). The Peace Dividend: Military Spending Cuts and Economic Growth. IMF Working Papers 95 (53).
7 Interview EU-A-2, EU representative
8 Farrell, Henry/Newman, Abraham L. (2019). Weaponized Interdependence: How Global Economic Networks Shape State Coercion. International Security 44 (1), 42–79.
9 Babić, Milan (2023). The rise of state capital. Transforming markets and international politics. Newcastle upon Tyne, Agenda Publishing.
10 Joint Communication to the European Parliament, the European Council and the Council on "European Economic Security Strategy" of 2023. JOIN(2023) 20 final.
Joint Communication to the European Parliament and the Council: Strengthening EU economic security of 2025. JOIN(2025) 977 final.

rather as one that combines economic, security and technological dimensions, assigning the state an active political role in achieving it. This alone represented a paradigm shift away from a purely liberal trade logic. And, indeed, the EU has gone some way in institutionalising the new ideas on economic security. For one, it has expanded the mandate of the Commission's Directorate-General for Trade to include economic security; and, for another, it has established a new unit to coordinate policy development seeking to turn trade policy into a primary tool for security.[11]

> ***Economic security*** is the state's ability to maintain both its strategic freedom of action and the well-being of its citizens despite external geoeconomic pressures. This requires a multidimensional approach that balances economic, sovereignty, societal and ecological goals.

However, this report suggests that the EU must look beyond its focus on coordination to include additional, overlapping dimensions of security. The state's emerging role is increasingly defined by its ability to prevent systemic collapse during external shocks—ensuring the continued operation of the economic system by maintaining the fundamental conditions required for society to function.[12]

Germany, too, must maintain its economic security in this new geoeconomic order. A recent study on Germany's geoeconomic "*Zeitenwende*" frames its shift as a move from market-driven openness toward a more power-conscious economic order focused on employing economic policy to preserve strategic autonomy.[13] Institutionally, Germany's geoeconomic turn can be seen in Chancellor Merz's government preparing Germany's first National Economic Security Strategy to complement the EU's goals while addressing specific national vulnerabilities.[14] Yet, the German government has been intentionally vague about its exact understanding of economic security. Several officials point to a strategic preference within German ministries to avoid a fixed definition, a conscious choice made in order to preserve room for policy development in a dynamic environment.[15] While this does provide flexibility, the risk is that it entrenches a narrow and technocratic bias that prioritises de-risking and technological sovereignty over consideration of the broader societal and ecological foundations of economic security. For economic security to be sustainable and resilient, it must move beyond such narrow priorities to include social cohesion, political legitimacy and environmental sustainability.[16]

Mapping the four dimensions of economic security

In this report, economic security is understood as a comprehensive policy goal. Building on existing scholarship and this project's empirical research, economic security is defined here as the state's ability to maintain both its strategic freedom of action and the well-being of its citizens

11 Interview EU-A-3, EU representative
12 Interview EU-A-1, EU representative
13 Hilpert, Hanns Günther/Lohmann, Sascha (2026). The return of power politics to the market. German Institute for International and Security Affairs. SWP Research Paper RP 07.
14 Medunić, Filip (2025). Wirtschaftssicherheit in unsteten Zeiten. German Council on Foreign Relations. DGAP Policy Brief 11.
15 Interviews DE-A-3, 4, 5 and 6, German civil servants
16 Holst, Lea/Winter, Elisabeth (2025). Strength through justice: Europe's path to long-term competitiveness. In: BKHS Magazine 05, 38–42.

despite external geoeconomic pressures. Furthermore, economic security is made up of four dimensions which must be balanced and aligned for economic security to be resilient and lasting.

- The economic dimension focuses on promoting competitiveness, supply chain resilience and critical innovation. It involves maintaining a state's "ability to act" through economic strength and technological sovereignty and moving beyond risk management to proactively shaping global value chains.
- The sovereignty dimension represents the concerns of traditional security policy, including the protection of critical infrastructure and security of supply. Economic levers (such as investment screening) are utilised to prevent adversaries from exploiting dependencies.
- The ecological dimension focuses on using resources sustainably and mitigating climate risks. Long-term security is impossible if economic policies ignore the systemic risks of the climate crisis or create new, unmanageable environmental dependencies.
- The societal dimension concerns ensuring employment, participation and social cohesion. It is critical for maintaining the social contract and democratic legitimacy. If the costs of the geoeconomic turn are perceived as unfairly distributed, it will create a domestic security liability in the form of political alienation and populist backlash.

The four dimensions are mutually constitutive as illustrated in Figure 2. Weaknesses in one dimension can undermine the others. As the World Economic Forum's Global Risks Report 2026 highlights, the most severe threats facing states today—ranging from geoeconomic confrontation to the erosion of social cohesion—are fundamentally inseparable.[17] Economic security is only as strong as its weakest dimension.

For example, pursuing technological sovereignty (the economic dimension) through industrial subsidies may strengthen competitiveness, but it can also create trade-offs with sustainability and security. If such policies ignore ecological standards, they may exacerbate resource scarcities and climate-driven supply shocks (ecological dimension) while simultaneously straining fiscal capacities and potentially diverting funds from the protection of critical infrastructure (sovereignty dimension).[18] As one business representative highlighted, climate-driven natural disasters, such as extreme droughts or floods, are no longer distant environmental concerns but immediate economic threats capable of erasing vital production areas from one day to the next.[19]

Similarly, supply chain diversification—the cornerstone of "de-risking"—may strengthen strategic resilience while triggering regional or local economic shocks. Without targeted support, the resulting industrial decline in specific regions could weaken social cohesion, transforming a strategic

17 World Economic Forum (2026). The Global Risks Report 2026. 21st ed. Cologny/Geneva.

18 Wang, Kerina/Core, Lauren Nicole/KPC PMU (2023). Navigating the trade-offs of ecological, economic, and development goals to protect biodiversity. World Bank Group.
Bosch, Tim/Campbell, Loyle/Vinke, Kira (2023). Emissions Mitigation as a National Security Investment. DGAP Policy Brief No. 22.
NATO Climate Change and Security Centre of Excellence (2024). Advancing climate security together. We need to adapt. We need to mitigate our impact.

19 Interview BUS-A-2, business representative

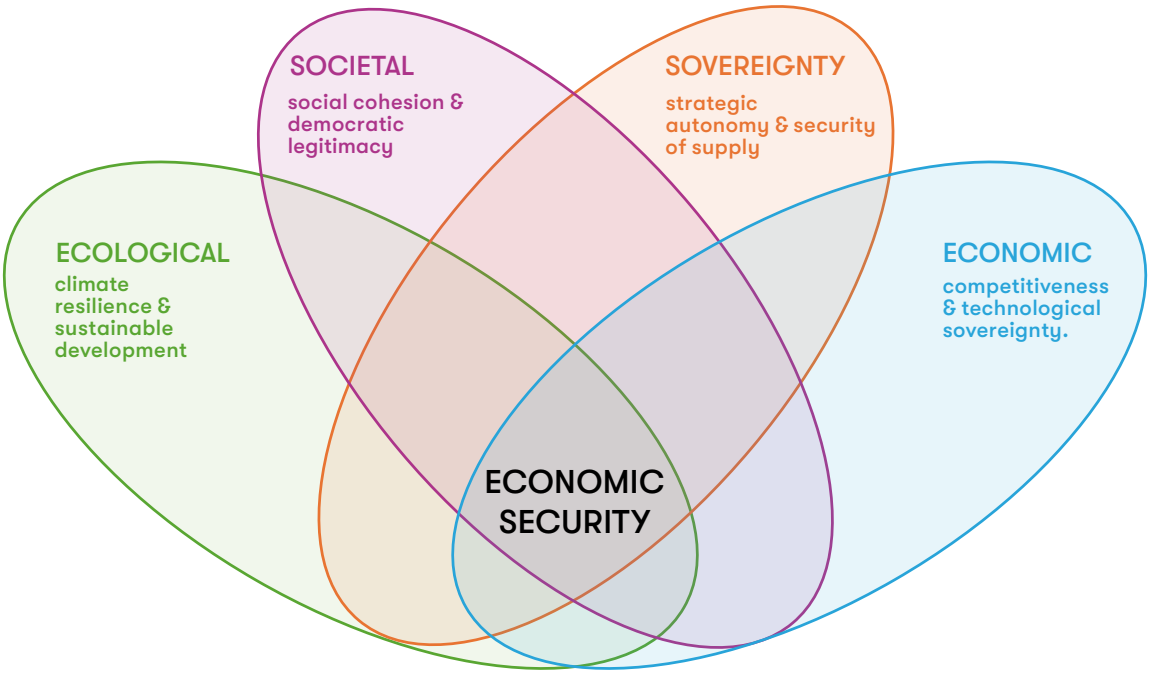

Figure 2: Economic security as a four-dimensional policy objective: *Illustration of economic security as a multidimensional policy goal in which economic sovereignty, ecological, and societal dimensions are mutually constitutive. Economic security exists at the centre where competitiveness, strategic autonomy, sustainability and social cohesion are aligned.*

success into a potential risk to domestic security.[20] Social and economic inequalities erode citizens' trust in institutions and their belief in the fairness of the system, thereby undermining the legitimacy of any strategically ambitious geoeconomic agenda.

The societal dimension constitutes a key pillar of multidimensional economic security. It provides the democratic legitimacy required for any proactive geoeconomic action. In Germany, the fact that approximately 21 per cent of the population is at risk of poverty or social exclusion creates a significant resilience deficit.[21] This vulnerability is critical, as perceived unfairness and status anxiety—prevalent even among middle-income groups—drive political alienation and support for anti-systemic movements like the AfD.[22] One business representative suggests in an interview that the perceived dysfunction of globalisation is directly linked to social injustice; when citizens feel they no longer benefit from global developments, the legitimacy of the entire economic order itself is called into question.[23] When a society is fractured by distributive injustice, the state loses its strategic freedom of action, as the

20 Ahn, JaeBin/Tan, Brandon Joel (2025). Supply Chain Diversification and Resilience. WP/25/102.
Grossman, Gene M., Helpman, Elhanan/Lhuillier, Hugo (2021). Supply Chain Resilience: Should Policy Promote Diversification Or Reshoring? National Bureau of Economic Research. NBER Working Paper 29330.
Opitz, Friedrich/Vinke, Kira/Tiedemann-Friedl, Leon/Courtney, Nick/Winter, Elisabeth/Gohla, Vera/Terrill Whitney (2026). Renewal amidst turmoil. Industrial Heartlands between Rearmament, Recarbonisation and Realignment - Lessons from Germany and the U.S. Das Progressive Zentrum e.V.

21 Statista (2026). Quoten der Armuts- oder Ausgrenzungsgefährdung in Deutschland von 2020 bis 2024. Data: Statistisches Bundesamt 2026.

22 Hövermann, Andreas (2025). Die Verdopplung des AfD-Elektorats. Erkenntnisse aus dem WSI-Erwerbspersonenpanel 2020 – 2025. WSI-Study (42).

23 Interview BUS-A-7, business representative

political will for necessary but costly geoeconomic adjustments (such as energy transitions or military expenditures) evaporates.[24]

Economic strength lacks a foundation without societal buy-in, strategic autonomy is impossible without ecological sustainability, and military security is hollow without a resilient innovation base. Achieving economic security therefore requires states to move beyond reactive risk management toward a multidimensional approach that proactively balances economic performance and strategic sovereignty with social equity and planetary boundaries. Yet current European and German debates remain heavily skewed toward a narrow, technocratic understanding. While policymakers focus their geoeconomic strategies on the procurement of semiconductors and raw materials, they risk overlooking that the foundations of a truly resilient strategy also include social cohesion and ecological sustainability.

The strategy: inclusivity as a requirement for geoeconomics

Geoeconomics as a tool of proactive policymaking

If economic security is the overall policy objective, then geoeconomics is the appropriate strategy to achieve it. Geoeconomics refers to the "targeted use of economic instruments to achieve foreign and security policy goals".[25] This insight itself—that economic activity can generate prosperity and simultaneously promote foreign and security policy objectives—marked a shift from liberal wisdom toward "economic statecraft". Unlike traditional liberal economic policy, economic statecraft is inherently proactive in the sense that the state takes an active role in planning and intervening in the economy using tools such as export controls, investment screening and subsidies.[26] These are used not just to correct market failures, but to shape geopolitical outcomes. Economic policy thus becomes a strategic component of a country's foreign and security policy.

In interviews, EU officials underlined the importance of the state's new proactive role in today's geoeconomic world order, arguing that it enables governments to assume responsibilities that could not be fulfilled under a purely economic framework.[27] Indeed, the EU's continuously updated Economic Security Strategy represents a significant step toward systematically linking economic and security policy. The strategy's "3 Ps" (promote, protect, partner) show that the EU has begun to embrace a more active approach to economic

24 World Economic Forum (2026). The Global Risks Report 2026. 21st ed. Cologny/Geneva.
25 Hilpert, Hanns Günther/Lohmann, Sascha (2026). The return of power politics to the market. German Institute for International and Security Affairs. SWP Research Paper RP 07.
26 Babić, Milan/Graaff, Nana de/Linsi, Lukas/Weinhardt, Clara (2024). The Geoeconomic Turn in International Trade, Investment, and Technology. Politics and Governance 12.
27 Interview EU-A-1, EU representative

statecraft.[28] While the 3 Ps represent progress, the interviews with EU policymakers demonstrate that the current debate remains heavily skewed toward technocratic de-risking. Recent hearings in the European Parliament also reveal a distinct bias in favour of technological competition with China while ignoring social and environmental risks.[29] This supports the expert community's already existing criticism of the EU for its lack of ambition and coherence[30] and its slowness to adjust to modern power politics.[31] In addition, many experts call for the EU to create an Economic Security Council for better coordination[32], to move from passive risk-management to active application of instruments[33], and to reduce the persistent gap between Brussels-led economic competencies and member state-led security.[34]

Inclusivity as a foundational security requirement

Geoeconomic approaches that focus solely on defending against outside threats risk creating domestic vulnerabilities, as they fail to address the linkages represented in the four-dimensional economic security framework. Measures that seek to strengthen economic competitiveness may erode public trust if the costs fall disproportionately on specific regions, sectors or social groups; ecological trade-offs ignored in pursuit of supply chain resilience undermine long-term sustainability; and institutional fragmentation across levels of EU governance prevents coherent implementation. Therefore, the approach of inclusive geoeconomics proposed in this report seeks to systematically address the interdependencies between the various dimensions of economic security. It expands traditional geoeconomics into an integrative and participatory framework that balances economic performance with social justice, strategic sovereignty and ecological responsibility while incorporating perspectives from all relevant stakeholders—from politics, business, labour, civil society and academia. It necessitates public authorities at the local, national and EU levels to involve these stakeholders in designing, implementing and evaluating geoeconomic measures.

An inclusive geoeconomic strategy consists of five critical aspects—policy objective alignment, distributional mitigation, stakeholder involvement, multi-level coherence and long-term vision.

First, clearly identifying policy objectives allows for balancing trade-offs. Geoeconomic measures must clearly identify their primary policy objective and most relevant economic security dimension—economic competitiveness, strategic sovereignty, social cohesion or ecological sustainability—while defining

28 Through its Economic Security Strategy and its evolution, the EU politically defined the principle that economic security is based on three central pillars: promoting competitiveness, economic growth and technological innovation; protecting against economic and technological risks; and cooperating with like-minded partner states.
29 Interview EU-A-2, EU representative
30 Gehrke, Tobias/Medunić, Filip (2024). Fortune favours the bold: Upgrading the EU's geoeconomic strategy. ECFR.
31 Ghiretti, Francesca (2025). The Return of Economic Statecraft. IPQ 05/2025.
32 van Middelaar, Luuk (2025). The EU needs an Economic Security Council. Brussels Institute for Geopolitics. editorial.
33 Gehrke, Tobias/Schmelzer, Nina (2026). Beijing hold'em: European cards against Chinese coercion. ECFR. Policy Brief ECFR/631.
34 Falkenberg, Dorothée (2026). Bridging the governance gap in EU Economic Security. Recommendations for institutional reform at the trade-security nexus. BKHS Perspectives 12_2026.

their impact on the other dimensions. This forces an explicit recognition that promoting one dimension may come at the cost of weakening others. As a practical example, a representative from business underlined the fact that environmental shocks like heavy rain or drought act as direct, immediate threats to the very supply chain resilience that technocratic policies seek to protect.[35] This highlights a tension between short-term economic resilience—achieved through cost-efficient, high-throughput routes—and longer-term ecological sustainability, which requires reducing dependence on climate-vulnerable infrastructure.

Inclusive geoeconomics is an integrative and participatory strategy that expands on classic economic statecraft by explicitly reconciling economic performance with social justice, strategic sovereignty and ecological responsibility. Unlike traditional geoeconomics, the inclusive approach ensures economic security is achieved not merely by means of increasing economic competitiveness but through enhancing domestic legitimacy and long-term sustainability while fully incorporating the perspectives of all relevant stakeholders. In terms of agency, it assigns the state an active, coordinating role as well as responsibility for shaping a positive long-term vision for economy and society.

Thus far, however, the EU's institutional focus has been on deploying geoeconomic tools centred on investment screening, export controls and public-private partnerships in critical sectors. While this is vital for the economic dimension of security, an inclusive strategy must ensure that this trade-heavy competency does not inadvertently sideline societal or ecological objectives. An inclusive geoeconomic strategy thus demands proactive balancing across dimensions to generate synergies rather than defensive trade-offs, recognising that economic policy traditionally pursues multiple simultaneous objectives and that geoeconomic securitisation carries consequences for all.[36]

Second, mitigating distributional effects safeguards social cohesion and democracy. Who benefits from investment screening or critical raw materials diversification and who bears the costs through higher consumer prices or industrial restructuring? As one EU official emphasised, economic security is ultimately concerned with preserving the societal foundations of political stability.[37] Research shows that perceived unfairness and "feelings of disadvantage" drive political alienation and populist mobilisation. Furthermore, high levels of social inequality threaten democracy, as they catalyse political polarisation and undermine the trust necessary for collective security.[38] One researcher warned that when the most vulnerable citizens bear a disproportionate share of the costs of geoeconomic shifts—for example through inflation in essential

35 Interview BUS-A-2, business representative
36 Kürzdörfer, Nora/Valencia, Eduardo (Eds.) (2025). Global Perspectives on Responsible Economic Statecraft. GIGA.
37 Interview EU-A-1, EU representative
38 Brülle, Jan/Spannagel, Dorothee (2023). Income Inequality as a Threat to Democracy. WSI Distribution Report 2023. WSI Report 90e. Hans-Böckler-Stiftung (2024). Aufstieg des Rechtspopulismus: Erklärungsansätze und Analysen.

sectors such as food and energy—political alienation grows and right-wing populist movements can exploit the resulting insecurity and hardship.[39] Inclusive geoeconomics seeks to neutralise these risks by legitimising costs through transparent stakeholder dialogue and ensuring that unmanaged economic shocks do not fuel nationalism.[40] It must prioritise effective communication to recognise and thus minimize trade-offs for people and societies, as well as to ensure successful implementation.

Third, comprehensive stakeholder involvement bridges diverging interests. A truly effective geoeconomic strategy requires nation states to play a coordinating role, aligning private sector interests with national and European security requirements.[41] No dimension falls under the responsibility of a single actor. For example, business provides market intelligence, labour ensures workforce adaptation, civil society monitors social impacts and academia supplies long-term scenario analysis. A successful strategy depends on the state acting as a coordinator who engages all stakeholders early enough so that they may influence policy design. A business representative highlighted that this also includes the need for companies to internalise geopolitical risks—for example, in the areas of cybersecurity and physical sabotage—into their core business models, moving beyond traditional commercial risk assessments. In a weaponised environment, one interviewee stressed, the security perimeter now extends to everyday economic actors, necessitating a proactive "security" mindset across the economy.[42] Furthermore, EU primary law[43] mandates integrating human rights, sustainable development and environmental protection into the Union's external action, making stakeholder coordination both legally required and strategically essential.[44] Inclusive geoeconomics takes this legal reality as a strategic starting point and calls for the establishment of institutional mechanisms across all stakeholders.

Fourth, establishing institutional coherence across EU multi-level governance ensures effective implementation. Economic security begins at home because social cohesion constitutes a strategic asset. National governments therefore need to translate the EU's economic directives into domestic practice while coordinating their security assessments with European partners. Regional authorities need to build place-based resilience by managing the socioeconomic impacts on local industries and communities. Our interviews highlight that achieving coherence is particularly difficult in Germany due to internal institutional silos. For example, the bureaucratic separation between the "geoeconomics" and "economic security" units may hinder a holistic, cross-departmental response to multidimensional threats.[45] Without effective cross-level

39 Interview TT-A-1, researcher
40 Colantone, Italo/Stanig, Piero (2019). The Surge of Economic Nationalism in Western Europe. Journal of Economic Perspectives 33 (4), 128–151.
41 Ghiretti, Francesca (2025). The Return of Economic Statecraft. IPQ 05/2025.
42 Interview BUS-A-1, business representative
43 Art. 21 TEU, 191 TFEU
44 Consolidated version of the Treaty on European Union of 6/7/2016. Official Journal of the European Union.
45 Interviews DE-A-3 and 5, German civil servants

mechanisms, however, geoeconomic instruments will fail to achieve legitimacy. For example, repurposing structural funds for defence purposes may create regional instability if local development needs remain unaddressed. The inclusive geoeconomic strategy requires identifying responsible actors on different policy levels, establishing coordination mechanisms to prevent fragmentation of the EU single market and ensuring feasibility given available resources.

Fifth, escaping reactive crisis cycles through positive visions achieves long-term resilience. Does the measure remain effective after trade-offs? Does it advance positive visions—industrial renewal, just transitions, technological leadership—rather than defensive damage control? An EU official stated that the conscious decision to avoid a formal definition for economic security—often for the sake of political expediency during policy drafting—has left the current EU strategy in a state of flux.[46] Without a clear conceptual anchor, policymaking remains trapped in a reactive, risk-based mode and is not able to advance a positive, long-term vision for industrial and societal renewal.[47] In this context, the state must play a strategic role by establishing interagency structures to address this cross-cutting challenge, while balancing short-term corporate interests against long-term security needs to avoid long-term regional instability. Inclusive geoeconomics considers public buy-in as a prerequisite for any long-term geoeconomic strategy and it operationalises these principles through forward-looking governance and proactive and coordinated engagement.[48]

The implementation: the inclusive geoeconomics checklist

The inclusive geoeconomics checklist operationalises the strategy of inclusive geoeconomics to achieve economic security. It translates the findings from the expert interviews and the analytically grounded theory into practical policy application for government officials. Its core goal is to ensure that geoeconomic measures strengthen overall resilience across all four dimensions of economic security. It encourages an active and strategic role for the state and promotes anticipatory statecraft with a positive long-term vision of economic security.

The checklist is primarily aimed at German policymakers at the national, regional and local levels tasked with implementing the EU's economic security strategy in

46 Interview EU-A-1, EU representative
47 Interview DE-A-4, German civil servant
48 Kürzdörfer, Nora/Valencia, Eduardo (Eds.) (2025). Global Perspectives on Responsible Economic Statecraft. GIGA.

coordination with relevant EU institutions and bodies. The multi-level focus bridges international power politics with domestic execution and connects global strategy with local realities. The checklist should help to determine whether a geoeconomic measure strengthens economic security or merely displaces vulnerabilities from one domain to another. It provides five strategic steps that raise awareness of trade-offs, support coordination across levels of governance and ensure that inclusivity is built into decision-making from the beginning. The basic idea is simple: every geoeconomic measure should be reviewed for trade-offs before it is adopted and implemented.

The inclusive geoeconomics checklist

Step 1: Review the four dimensions

- What is the primary policy objective and which of the four economic security dimensions does it impact most?
- Does the measure strengthen one dimension while inadvertently weakening another?
- Does the measure proactively balance goals from different dimensions to generate positive synergies?

Step 2: Ensure stakeholder involvement

- Were relevant stakeholders, including from business, labour and civil society, involved early enough in the process to shape the design?
- Is there a clear mechanism for continued coordination across these groups?
- How does the coordination mechanism address diverging interests, for example between the state's long-term interest in security and firms' shorter-term commercial incentives?

Step 3: Analyse distributional effects

- Who benefits from the measure and who bears the associated costs?
- Are specific regions, sectors or social groups disproportionately affected by the policy?
- Where are compensation, adjustment or mitigation mechanisms needed to preserve social cohesion?

Step 4: Assess the institutional set-up

- Which actors are responsible for the design, coordination and implementation of the measure?
- Is there an effective coordination mechanism across the local, national and EU levels to avoid fragmentation, including within the single market?
- Is the implementation plan institutionally feasible and aligned with available resources?

Step 5: Promote long-term resilience

- Does the measure remain effective after trade-offs have been taken into account?
- Does it advance a positive long-term vision rather than serving only as a reactive crisis response?
- Does the EU, the member state or the local authority exercise an active and strategic role rather than a purely defensive one?

3. Case study I: the Port of Hamburg

Economic security and inclusive geoeconomics span multiple policy fields, but their implications and trade-offs become most visible in practical policy implementation. To illustrate this report's analytical framework, the current chapter examines the Port of Hamburg as a case study of critical infrastructure. It builds on the project's interim report and makes use of additional empirical evidence. The following sections first introduce the case, then analyse how multidimensional economic security manifests itself at the port and, finally, demonstrate how the inclusive geoeconomics checklist can be applied to the case.[49]

The Port of Hamburg as Germany's geoeconomic land-sea node

The Port of Hamburg represents one of the most complex intersections of global trade flows, geostrategic competition, local labour politics and infrastructural vulnerability in Europe. As Germany's largest seaport and Europe's third-busiest container terminal—handling about 8.5 million TEU[50] in 2025 and contributing 50.8 billion euros in gross value added across Germany—the port functions as a critical node connecting continental supply chains to global maritime routes.[51] However, its logistical pre-eminence also makes Hamburg strategically vulnerable. As a formally designated piece of critical infrastructure under EU and German security frameworks, the port sits at the intersection of economic openness, industrial labour relations, climate adaptation pressures and intensifying great power competition over trade routes.

For decades, the port's success rested on a stable formula of economies of scale, unionised labour and reliable access to global shipping networks. This model is now under pressure on multiple fronts. Chinese state-owned shipping giants control over 50 per cent of global container capacity and increasingly dictate terminal concessions[52], while automation threatens 40 per cent of dockworker jobs.[53] At the same time, the Port of Hamburg faces growing security threats, including espionage linked to drug trafficking networks, potential labour strike limitations under critical infrastructure rules, as well as climate risks that could render key infrastructure unusable during extreme weather events. Germany's forthcoming Economic Security Strategy is expected to address ports, highlighting the challenge of securing critical infrastructure without undermining the very openness and labour rights that underpin its economic function.

49 Winter, Elisabeth/Holst, Lea (2025). Rethinking economic security: the Port of Hamburg as a hub for inclusive geoeconomics. BKHS Perspectives 11_2025.
50 TEU stands for "twenty-foot equivalent unit", a general unit of cargo capacity
51 Hamburger Hafen und Logistik Aktiengesellschaft (2026). Annual Report 2025.
52 Blanchette, Jude/Hillman, Jonathan E./Qiu, Mingda/McCalpin, Maesea (2020). Hidden Harbors: China's State-backed Shipping Industry. CSIS Briefs.
53 Tandon, Vaibhav (2025). China's Growing Reach In Shipping. The U.S. is watching Beijing's growing maritime power. Northern Trust. Weekly Economic Commentary.

Economic security at the Port of Hamburg

Economic dimension: competitiveness through diversification and coordination

The economic dimension of economic security at the Port of Hamburg encompasses the capacity of critical infrastructure to remain resilient and competitive amidst an increasingly volatile global trade environment. Germany's largest seaport serves as a vital land-sea nexus that is key to the country's export-oriented economic performance.[54] It is currently linked to approximately 607,000 jobs across the country, providing the logistical backbone for key industrial sectors including mechanical engineering, chemicals and the automotive industry.[55]

Port modernisation through automation, digitalisation and green energy solutions are viewed by stakeholders as essential for maintaining Germany's long-term industrial competitiveness. However, a business representative pointed out that innovation is frequently hindered by significant structural hurdles.[56] A primary concern is the Hamburg port industry's high reliance on non-European suppliers for critical IT systems, energy networks and cloud infrastructures. These technological dependencies risk undermining the strategic autonomy of the German economy, making the promotion of German and European digital and energy systems a core economic priority. European ports' competitive disadvantage is deepened by the fact that Chinese state-owned operators prioritise strategic influence and logistical power over immediate commercial profitability and, furthermore, they are backed by massive state subsidies that European private operators cannot match.[57]

The interview discussions also highlighted a tension between the strategic goals of the EU and the practical reality of inter-port competition. For many workers at the port, the pressure to compete with other European hubs for scarce resources often takes precedence over broader geoeconomic cooperation against shared challenges like Chinese investor pressure and cyber risks.[58] While limited coordination exists to address emerging security concerns or reduce costs,[59] experts emphasised the need for closer institutional cooperation to maintain infrastructure.[60] The competition between ports is exacerbated by a chronic lack of funding at the state, federal and European levels, leaving authorities with insufficient resources to maintain essential infrastructure like rail systems.[61]

In addition, the economic dimension is increasingly vulnerable to geopolitical developments, ranging from shifting tariffs

54 Interviews BUS-A-2, business representative; DE-A-1, politician
55 Hamburger Behörde für Wirtschaft und Innovation – Pressestelle (2023). Hafenentwicklungsplan 2040. Strategische Vision. Mit Innovationskraft und Qualität zu nachhaltiger Wertschöpfung.
56 Interview CS-A-1, civil society
57 Sari, Aurel (2025). Protecting maritime infrastructure from hybrid threats: legal options. Hybrid CoE Research Report 14.
58 Interviews BUS-A-1, 2, 4 and 6, business representatives; UNI-A-1, researcher and Patriotische Gesellschaft von 1765 (2025). Perspektivwechsel für den Hamburger Hafen. 13 Thesen des Arbeitskreises Hafen und Wirtschaft.
59 Interviews BUS-A-2, 3, 4, business representatives
60 Interviews DE-A-1, politician; CS-A-2, civil society
61 Interviews BUS-A-2, 4 and 5, business representatives; DE-A-4, civil society

and maritime piracy to the closure of strategic straits.[62] Geopolitical challenges represent the greatest short-term risk to port operations according to the World Economic Forum's Global Risks Report 2026, a view echoed by business interviewees who expect continued disruptions that will require rapid adaptation.[63] Europe's sanctions against Russia provide a stark example of this vulnerability. In 2022, Russia fell from the port's fourth to its twenty-seventh most important trading partner, causing a significant decline in container and bulk cargo handling.[64] While in this case the industry was able to adapt fairly well, shocks such as these often result in additional costs and local job losses.[65]

To mitigate these risks, the diversification of trading partners and cargo types—mixing container, general and bulk cargo—is essential for safeguarding Hamburg's regional economy.[66] This "cargo mix" acts as a stabiliser. For example, while overall container handling decreased during the COVID-19 pandemic, other cargo segments remained stable.[67] Diversification also addresses the geographical limits of the Elbe passage. As larger vessels eventually face operational constraints in Hamburg, the port must secure specialised market niches to remain a competitive global hub.[68] At the same time, diversification is more complex in practice than often assumed. Despite state incentives to encourage diversification, it remains constrained by high costs and the regulatory challenges associated with accessing new markets.[69] For economic actors, price is still the determining factor for all decisions. Even when confronted with specific, plausible and possible risks, companies often choose competitiveness over resilience.[70]

Sovereignty dimension: critical infrastructure in a weaponised environment

The sovereignty dimension of economic security centres on the safeguarding of essential supplies and critical infrastructure. In the current geopolitical climate, robust economic infrastructures are an essential component of security policy. Ports occupy a central position at the intersection of economic, military and societal supply systems. Interviewees from business and public administration highlight that the continuous functioning of ports is essential for maintaining the critical flow of goods curing crises.[71] As emphasised by several experts, the Port of Hamburg is essential for securing pan-European supply chains.[72] Its importance extends far beyond the greater Hamburg area, as it connects global trade routes with the land-locked industrial hinterland of Northern and Central Germany and Eastern Europe.

62 Interviews BUS-A-1, 2 and 5, business representatives; DE-A-3, German civil servant
63 World Economic Forum (2026). The Global Risks Report 2026. 21st ed. Cologny/Geneva. And Interviews BUS-A-5 and 6, business representatives.
64 Interviews BUS-A-4 and 6, business representatives
65 Interviews BUS-A-5 and 6 business representatives
66 Interviews DE-A-1, politician; BUS-A-3, 4 and 6, business representatives; UNI-A-1, researcher and Voelsen, Daniel (2024). Maritime kritische Infrastrukturen.
67 Jessen-Thiesen, Levke (2022). Am Puls des Welthandels – der Umschlag im Hamburger Hafen während der Corona-Krise. Kiel Institut für Weltwirtschaft. Kiel Policy Brief Nr. 161.
68 Interviews DE-A-1, politician and DE-A-3, German civil servant; CS-A-2, civil society
69 Interviews BUS-A-2 and 3, business representatives
70 Interviews BUS-A-5, business representative; TT-A-2, researcher
71 Interviews BUS-A-1 business representative; DE-A-4 German civil servant
72 Interviews DE-A-1, politician; DE-A-2 German civil servant; BUS-A-2 and 6 business representatives

The strategic significance of this type of infrastructure is clearly illustrated by the Port of Hamburg's recent operational role. In 2024, it functioned as the primary logistical hub for troop movements during the NATO exercise "Steadfast Defender" and again in 2025 during the "Red Storm Bravo" exercise, where the focus was on testing the efficacy of civil-military cooperation in a high-tension scenario. The Port of Hamburg exemplifies the high degree of European connectivity, where infrastructure located on one national coastline becomes of existential importance for the security of supply of the entire European Union.[73] This strategic perspective is explicitly reflected in Germany's 2024 National Port Strategy[74], which highlights the considerable economic and strategic relevance of German seaports and inland ports, considering them as vital nodes within both maritime and continental supply chains.

Interviewees from various sectors pointed out that security of supply is a core issue of everyday life, yet public dependence on functioning transshipment and transport structures often only becomes apparent when supply chains are interrupted. Such disruptions have immediate consequences for the availability of daily goods.[75] Events such as the 2021 Suez Canal blockage or recent conflicts hindering the passage of the Strait of Hormuz serve as a stark reminder that critical infrastructure is a vital public good that requires state protection.

Despite growing awareness of these vulnerabilities, there is a significant deficit of security policy expertise within the sector. Decades of trade liberalisation and efficiency-driven policymaking have eroded the preparedness capacities of both public administrations and private firms. Rebuilding this knowledge base, strengthening institutional cooperation and re-establishing robust planning structures are urgent priorities.[76] This requires stronger coordination between Hamburg and the federal government to align the port's development with Germany's new Economic Security Strategy, ensuring that strategic priorities receive national support rather than remaining a local responsibility.[77] Furthermore, one interviewee from civil society highlighted that the increasing militarisation of port environments necessitates greater attention to the protection of employees. This represents a crucial overlap with the societal dimension of economic security that is often sidelined when discussing military mobility.[78]

Debates on foreign direct investment (FDI) further complicate this dimension. Strategically motivated, state-linked investors may target critical infrastructure for long-term leverage, though interviewees stressed that these risks are highly case-dependent.[79] In Hamburg, the risk is partially mitigated because core assets such as the land must remain under public control.[80] However, a careful balance must be found between maintaining economic openness and implementing security

73 Voelsen, Daniel (2024). Maritime kritische Infrastrukturen.
74 Federal Ministry for Digital and Transport (Ed.) (2024). National Strategy for Sea and Inland Ports.
75 Interviews BUS-A-1, 2 and 5, business representatives
76 Interviews DE-A-2, German civil servant; BUS-A-5, business representative; CS-A-5, civil society
77 Patriotische Gesellschaft von 1765 (2025). Perspektivwechsel für den Hamburger Hafen. 13 Thesen des Arbeitskreises Hafen und Wirtschaft.
78 Interview CS-A-2, civil society
79 Interview DE-A-4, German civil servant, see also Banach, Clark/Gunter, Jacob (2024). Mapping China's global port network: on the backfoot in 2024, but still well entrenched. MERICS | Mercator Institute for China Studies.
80 Interview CS-A-2, civil society

safeguards, as FDI might also be necessary for safeguarding employment and promoting technological innovation.[81] Some interviewees are also critical of the expanding control of private firms over certain supply-chain segments, arguing that this concentration of power reduces public oversight and limits the state's ability to respond to security-related disruptions.[82] Finally, the sharp rise in cyberattacks in Germany targeting critical infrastructure risks sensitive data outflows and confirms that digital security is now a prerequisite for both military and economic resilience.[83]

Ecological dimension: climate resilience and contested transformation

The ecological dimension recognises that long-term economic security is impossible if climate risks, energy transition pressures and environmental degradation undermine port operations and public legitimacy. At the Port of Hamburg—where the city has committed to climate neutrality by 2040—this dimension is particularly salient because ecological challenges are not external to port functions but embedded in its urban location. The energy transition creates opportunities for innovation through renewable energy, green hydrogen and sustainable logistics.[84] Yet interviewees differed sharply on whether the security turn accelerates or hinders environmental goals, with some warning that short-term supply priorities could sideline climate action,[85] while others saw momentum for ecological investment.[86]

Energy infrastructure reveals the core tension between dimensions. LNG terminals may strengthen short-term energy autonomy and security of supply, but they risk locking in carbon-intensive assets that contradict Hamburg's 2040 climate neutral target.[87] As one expert working in politics stressed, economic security can only be viable in the long-run if ecological sustainability is integrated into long-term strategic planning.[88] Shore power offers an instructive example: originally introduced to reduce ship emissions and local air pollution, it evolved into a climate mitigation tool and is now framed as a resilience asset due to its ability to reduce fossil fuel dependence.[89] This shows how ecological measures can acquire economic and strategic value when embedded in a broader port strategy.

The Port of Hamburg's inland location—100 km up the Elbe River and embedded within the city—makes ecological pressures uniquely political. Dredging for deeper navigation causes contamination and ecosystem damage with direct impacts on residents, while noise, emissions and land use shape public opinion.[90] Environmental groups have long highlighted these issues, turning ecological accountability into a

81 Interview CS-A-2, civil society
82 Interviews DE-A-1, politician; CS-A-1, civil society; UNI-A-1, researcher
83 Interviews BUS-A-1, 4 and 5 business representatives; DE-A-3, German civil servant; UNI-A-2 researcher
84 Interviews BUS-A-1 and 4, business representatives, see also Notteboom, Theo/Haralambides, Hercules (2023). Seaports as green hydrogen hubs: advances, opportunities and challenges in Europe. Maritime Economics & Logistics 25 (1), 1–27.
85 Interviews BUS-A-2, business representative; EU-A-2, EU representative
86 Interview CS-A-5, civil society
87 Interview DE-A-1, politician and Höhne, Niklas/Marquardt, Mats/Fekete, Hanna (2022). German LNG terminal construction plans are massively oversized. NewClimate Institute. Briefing.
88 Interview DE-A-1, politician
89 Interview CS-A-5, civil society
90 Interviews UNI-A-1, researcher; CS-A-5 civil society; DE-A-1, politician

legitimacy question. The port's transformation, therefore, cannot succeed through technical fixes alone; it also requires social measures like fair employment, reskilling and community involvement.[91]

Port companies currently face the dual challenge of sustainable innovation and competitiveness. The "green port" concept was described in interviews as a long-term driver of new markets in energy efficiency, circular logistics and low-emission supply chains.[92] Yet, priorities shift according to the political context: measures initially introduced with an environmental justification later gain security rationale, as with shore power's evolution from a pollution control measure to a key factor in geoeconomic resilience.[93] This demonstrates that ecological security cannot be siloed. Economic competitiveness depends on climate-adaptive infrastructure, strategic resilience requires reducing fossil fuel exposure and social legitimacy hinges on addressing urban environmental justice.

Ecological security at the Port of Hamburg therefore demands more than decarbonisation targets. It requires integrating climate adaptation, circular economy principles and participatory governance into port strategy, and these must go further than they do today. Without this multidimensional approach, short-term energy or efficiency gains risk long-term political and operational fragility as environmental costs accumulate and public tolerance erodes.

Societal dimension: labour, legitimacy and urban embeddedness

The societal dimension concerns whether the Port of Hamburg can maintain social cohesion, fair working conditions and democratic legitimacy amid technological transformation, geopolitical shocks and infrastructural change. Unlike more isolated industrial sites, Hamburg's port is deeply embedded in the city's social fabric, serving as both its economic engine and identity anchor. One EU-level trade union representative emphasised that port cities are big communities and that ports are the cities' sources of wealth as well as health.[94] The importance of the community aspect is echoed in academic literature, which identifies that a port's social license to operate—granted by local residents and employees—is now as critical to its success as logistical efficiency.[95] Ports' urban embeddedness makes social stability foundational to their long-term security, as legitimacy crises can quickly undermine operational resilience.

Geopolitical disruptions reveal this vulnerability most clearly. While economic shocks affect port performance broadly, their social consequences fall heaviest on workers, particularly in structurally weak regions where port jobs anchor entire communities.[96] Interviewees consistently noted that employment insecurity during

91 Interview CS-A-1, civil society
92 Interview DE-A-1, politician
93 Interview CS-A-5, civil society
94 Interview CS-A-1, civil society
95 Luca, Patrizia de/Valentinuz, Giorgio (2024). Social sustainability for health and well being in port areas: A general framework proposal with a social value approach. Corporate Social Responsibility and Environmental Management 31 (6), 6234–6245.
96 Interviews DE-A-1, politician; BUS-A-5, business representative

crises amplifies broader social tensions, eroding trust in both port management and public authorities. This dynamic threatens not just livelihoods but the political support necessary for ambitious security measures or transformation processes.

Diversification acts as a critical social stabiliser. Workers feel the impact of global trade fluctuations and several interviewees highlighted how Hamburg's cargo mix has historically cushioned employment shocks.[98] During the 2008 financial crisis and the 2021 Suez Canal blockage, container handling suffered disproportionately, but traditional transshipment levels remained steady.[99] Despite the proven benefits of diversification across economic, strategic and social dimensions, experts criticised the persistent focus of firms on high-profit container traffic, which sacrifices long-term stability for short-term revenue. This profit bias risks amplifying social vulnerability during future disruptions.[100]

> ***"Port cities are built around their ports – they are sources of wealth and provide big communities, but it is also a sector that must protect working conditions, salaries and most of all, health and safety."***
>
> *Adapted quote by an EU-level trade union representative*[97]

A further key factor strengthening social resilience is democratic participation. As several interviewees highlighted, Hamburg's port sector benefits from a high level of co-determination through works councils, collective bargaining and the *"Gesamthafenbetrieb Hamburg"* framework established in 1950, which remains a benchmark for other German ports.[101] These institutions uphold wages, qualifications and talent pipelines even amid automation pressures.[102] Given the port's status as critical infrastructure, port workers also wield significant strike power, giving labour not just defensive capacity but active influence over strategic decisions.[103]

Social stability also hinges on corporate responsibility during crises. Interviewees from business stressed that firms must look beyond profitability to manage supply chain disruptions, environmental challenges and modernisation, or geopolitical shocks.[104] As part of the strategy of inclusive geoeconomics, economic security emerges from the strategic interplay between private accountability, institutional safeguards and public policy, rather than through state action alone.

The societal dimension intersects with all the others. Economic competitiveness requires labour cooperation; strategic protection requires the trust of workers to avoid resistance; ecological transformation demands community buy-in to prevent

97 Interview CS-A-1, civil society
98 Interview DE-A-1, politician and Merk, Olaf/Hesse, Markus. The Competitiveness of Global Port-Cities: The Case of Hamburg - Germany. OECD Regional Development Working Papers 2012/06.
99 Interview DE-A-1, politician and Bräuninger, Michael/Fiedler, Ralf/Friedrich, Thorsten/Küchle, Julius/Maatsch, Sönke/Schlennstedt, Jobst/Stiller, Silvia, Teuber, Mark-Oliver (2021). Analysis of the regional and overall economic Importance of the Port of Hamburg. Bremen/Hamburg February 2021.
100 Interview BUS-A-6, business representative
101 Interview CS-A-1 and 2, civil society
102 Interviews CS-A-1 and 2, civil society; BUS-A-6, business representative and Hans-Böckler-Stiftung (2019). Bei der Automatisierung sind Häfen vorneweg. Magazin Mitbestimmung of 05/2019.
103 Interviews BUS-A-4, business representative; CS-A-1 and 2, civil society
104 Interviews BUS-A-2 and 5, business representatives

backlash. A port that generates wealth but erodes social standards risks becoming politically unsustainable. Therefore, for the Port of Hamburg, social cohesion is not peripheral, but constitutive of economic security—it is the foundation enabling the port to navigate geoeconomic pressures while preserving its role as an urban anchor.

Synthesising the four dimensions

The Port of Hamburg case study demonstrates that the four dimensions of economic security do not exist in silos. A security measure that limits labour rights may erode the societal legitimacy of the port's defensive strategy, while a failure to diversify cargo increases the vulnerability of employment during geopolitical crises. The interviews highlight that retraining programs are a key link between technological transformation and social stability.[105] Furthermore, environmental damage has a direct effect on the city's inhabitants, meaning that the ecological and societal dimensions are physically inseparable in the urban port space.[106] Only by managing these trade-offs can the port remain a resilient geoeconomic node.

The Port of Hamburg offers a particularly useful case for analysing economic security because the four dimensions are tightly interwoven in one physical and political space. Figure 3 visualises how economic security sits at the intersection of economic, sovereignty, societal and ecological dimensions. Unlike many other strategic sectors, the port is not only a site of international trade, but also an urban workplace, a critical infrastructure, a target of geopolitical competition and a place where environmental transformation produces immediate local consequences. This makes the port an especially suitable case for showing how vulnerabilities in one dimension can quickly spill over into the others.

105 Interview DE-A-1, politician
106 Interviews BUS-A-6, business representative, CS-A-5, civil society

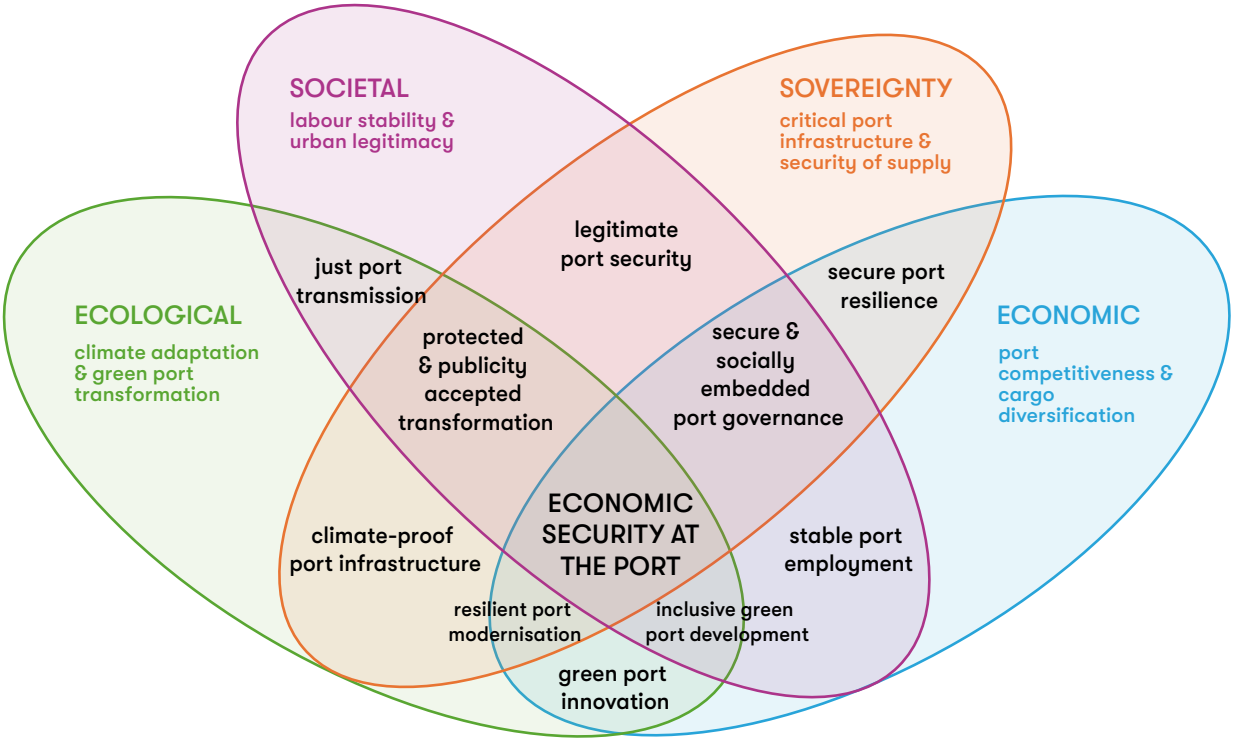

Figure 3: The Port of Hamburg as a geoeconomic land-sea node: *Economic security at the port can only be achieved if competitiveness, critical infrastructure protection, climate adaptation and social legitimacy are balanced and aligned. For example, resilient port modernisation combines economic competitiveness with climate-adaptive infrastructure and strategic security of supply, demonstrating how a single measure can strengthen multiple dimensions simultaneously.*

Inclusive geoeconomics in practice: recommendations for the Port of Hamburg

If a strategy of inclusive geoeconomics is not pursued, the likely result is not only a less resilient port, but also a widening gap between infrastructure security, economic competitiveness, ecological transformation and social legitimacy. The Port of Hamburg would then risk becoming a site where strategic vulnerabilities are managed reactively while conflicts over labour, urban development, digital dependencies and climate adaptation remain unresolved. The challenge for German policymakers on the local, state and federal levels is therefore to turn the transformation of the port into a managed process of strategic renewal.

Step 1: Balance policy objectives across the four dimensions

The first step of the inclusive geoeconomics checklist is the balancing of policy objectives. Every major port decision should assess which dimension of economic security it primarily advances as well as the consequences it may have for the other dimensions. In Hamburg, this applies in particular to terminal modernisation, automation, cyber-security, dredging, shore power, rail expansion and foreign investment screening. Measures that improve competitiveness or strategic protection may also generate new ecological burdens, labour tensions or governance conflicts if trade-offs are not addressed from the outset.

Inclusive geoeconomics therefore calls for port policy to move beyond siloed decision-making and evaluate each measure in terms of its combined effects on resilience, legitimacy and long-term viability.

Step 2: Involve stakeholders through a *"Hafenparlament"* (port parliament)

The second step is stakeholder involvement. Current port policy is still too often shaped by closed interactions between public authorities, terminal operators and a limited number of large actors. However, transformation equally affects labour, local residents, environmental organisations, logistics firms and regional institutions.

An inclusive geoeconomics approach therefore requires a structured coordination mechanism through which these actors can shape strategic decisions before they become public conflicts. A permanent *"Hafenparlament"*, or a comparable institutionalised port forum, could create a space in which debates over automation, cargo diversification, digital infrastructure, dredging, shore power and urban-port land use are addressed in a more transparent and participatory way.[107] Such a body would not replace formal decision-making, but it could improve information flows, build legitimacy and reduce the risk that strategic projects become flashpoints of political contestation.

Step 3: Mitigate distributional effects and safeguard the social contract

The third step concerns the distributional consequences of port transformation. The move toward a more digital, automated and security-conscious port will not affect all workers, firms and urban constituencies equally, and unmanaged adjustment may undermine the labour stability and public legitimacy on which the port's resilience depends.

Port modernisation should therefore be linked more closely to labour market and social policy, including retraining, upskilling and occupational mobility for workers affected by automation and restructuring. At the same time, investments justified in the name of national resilience should be accompanied by federal support so that the costs do not fall disproportionately on Hamburg, port workers or local communities. If the burdens of transformation are seen as unfairly distributed, support for broader geoeconomic adaptation will weaken.

107 NABU Hamburg (2023). Hafenentwicklungsplan 2024. Eine Stellungnahme.

Step 4: Ensure multi-level coherence across Brussels, Berlin and the German states

The fourth step concerns institutional coherence. The Port of Hamburg is governed through a fragmented architecture in which EU-level trade and competition rules, federal security and transport policy, German state-level port responsibilities and local urban planning intersect without consistent coordination. This fragmentation contributes directly to the vulnerabilities identified across the four dimensions, particularly where new security mandates are not matched by funding, where climate and logistics priorities pull in different directions, or where national strategic interests are implemented through local infrastructures without adequate support.

Germany should therefore establish a more permanent institutional link between its emerging economic security strategy and the governance of strategic infrastructures such as ports. A more coherent framework would combine security responsibilities on the part of infrastructure operators with federal co-financing, improve coordination across ministries and levels of government, and reduce destructive competition between ports.

Step 5: Move from reactivity to long-term renewal

The fifth step is concerned with crafting a positive long-term vision. Policymaking in the port sector remains heavily shaped by reactive responses to foreign investment controversies, cyber risks, supply-chain disruptions and geopolitical confrontation. However, a strategy based only on defensive crisis management will not secure Hamburg's position as a resilient land-sea nexus in the long run. Inclusive geoeconomics calls for a more positive vision that treats the port not simply as an infrastructure to be protected, but as a field of strategic renewal through which Germany can strengthen its economic capacity, ecological adaptation and domestic legitimacy all at the same time. This long-term vision should include the promotion of secure digital systems, diversified cargo strategies, stronger hinterland connectivity, expanded shore power, circular logistics and climate-adaptive infrastructure, combined with urban-facing measures that preserve public legitimacy over time.

4. Case study II: Germany's EV sector

The second case study examines the EV sector in Germany, where geoeconomic competition over industrial capacity, technological leadership and supply chains increasingly intersects with domestic labour markets and industrial transformation. The following sections first introduce the main conflict lines of the case, then analyse how multidimensional economic security manifests itself in this sector and, finally, demonstrate how the inclusive geoeconomics checklist can be applied in this case.

The EV sector as Germany's geoeconomic linchpin

The European automotive sector's transition to electromobility represents one of the most complex intersections of industrial policy, climate imperatives and systemic rivalry in the twenty-first century. As the backbone of the German economy—accounting for around 5 per cent of national value added and 800,000 direct jobs—the sector is undergoing a transformation driven by decarbonisation, digitalisation and geoeconomic realignment.[108] For decades, the European model relied on internal combustion engine (ICE) excellence and stable global supply chains, a paradigm that has been disrupted by what many describe as a "China Shock 2.0". Chinese manufacturers, supported by state-led industrial policy and deep vertical integration, have achieved cost advantages of up to 30 per cent and are projected to capture up to 25 per cent of the EU market.[109]

The sector nevertheless remains central to Europe's economic strength, contributing over 7 per cent to the EU's GDP and 6.1 per cent to overall employment, and Germany alone accounts for 35.2 per cent of total output.[110] The automotive sector is also central to the ecological transformation, as passenger cars account for around 16 per cent of total EU CO2 emissions.[111] While regulatory targets have pushed battery-electric vehicle market shares to 17.4 per cent by 2025, the sector remains in a structural crisis.[112] The EU's recently enacted

108 Janson, Hauke/Herdin, Gunvald (2025). Kompetenzentwicklung in der Automobilbranche – Weniger Jobs, neue Anforderungen.
109 Schmitz, Edgar/Matthes, Jürgen (2024). Konkurrenzdruck aus China für deutsche Firmen. Köln. IW-Report 39.
Marin, Dalia (2025): The China shock hits Germany. Centre for Economic Policy Research (CEPR).
110 European Commission (2026). Automotive industry.
acea (2025). The Automobile Industry Pocket Guide 2025/2026.
111 European Commission (2026). Cars and vans.
112 acea (2026). Economic and Market Report. Global and EU auto industry.

Industrial Accelerator Act (IAA) is the latest attempt to support the struggling sector. External pressures, including rising energy costs and China's control of roughly 75 per cent of global battery cell production, have significantly eroded the traditional engineering advantage of European manufacturers.[113]

For Germany and the EU, the importance of the EV sector therefore extends far beyond industrial competitiveness. It combines the reorganisation of industrial value chains, the decarbonisation of mobility, the digitalisation of vehicles and infrastructure, and the weaponisation of economic interdependence. As one researcher highlighted, the EV sector is particularly revealing because it brings together Chinese overcapacity, critical raw material dependencies and their ecological and societal implications within a single sector.[114] It is a test case for whether Germany and the EU can respond to weaponised interdependence without undermining openness, social cohesion and ecological sustainability.

While countries such as the US and Japan have integrated economic and security policy for some time, Germany has traditionally followed a more fragmented, siloed approach.[115] However, increasing pressure on the automotive sector has revealed the need for an integrated economic security approach. This makes the EV sector especially suitable for applying the framework of inclusive geoeconomics. The case illustrates that enabling the German automotive sector to accomplish the ecological transformation and remain competitive in international markets requires balancing the four policy dimensions of economic security within a single inclusive geoeconomics strategy.

Economic security in Germany's EV sector

Economic dimension: competitiveness through resilience

The economic dimension centres on companies' ability to act, understood as their capacity to remain competitive through technological sovereignty, innovation and resilient industrial structures. In the EV sector, this capacity is increasingly undermined by an asymmetric competitive environment in which European firms face Chinese state-capitalist structures that generously supports its EV industry.[116] This structural imbalance affects Europe's position in high-value segments of the value chain, particularly in battery technology and software, where losses in competitiveness translate into reduced control over core industrial capabilities.

113 IEA (2024). Global EV Outlook 2024. IEA. Paris.
114 Interview TT-A-2, researcher
115 An analysis of Japan's Economic Security Policy can be found here: Shiraishi, Shigeaki (2024). Japan's Economic Security Policy. — Current status and challenges—. Konrad-Adenauer-Stiftung Japan.
116 For details see e.g. Tagliapietra, Simone/Trasi, Cecilia/Sebastian, Gregor (2025). A smart European strategy for electric vehicle investment from China. Bruegel. Policy Brief 21/2025.

While this structural imbalance is partly shaped by Chinese state-capitalist support for its EV industry, European automakers and policymakers also bear responsibility for strategic hesitancy, underinvestment in battery ecosystems, and delayed adaptation to the pace of the ecological transformation.[117]

Market-based coordination alone has proven insufficient to address these long-term structural risks. As one EU official highlighted, the classic profit-maximisation models of firms are not designed to integrate the decade-long investment horizons required to respond to systemic industrial shifts.[118] This misalignment is contributing to a gradual erosion of Europe's industrial base, particularly within the German *Mittelstand* (Germany's specialised small and mid-sized enterprises), which lacks the financial capacity to absorb transition costs and scale new technologies at speed. Countervailing duties may address immediate price distortions, but they do not resolve underlying structural deficits in innovation capacity and industrial scaling. A coordinated European industrial strategy—such as the IAA—provides opportunities for coordinated national subsidies that will not undermine the integrity of the single market.[119]

A central determinant of competitiveness in the EV transition is the effectiveness of public-private coordination. Despite regulatory pressure to reduce CO_2 emissions and projections of increasing global EV demand, the economic viability of German and European EV production remains uncertain given the sector's lack of competitiveness vis-à-vis Chinese (or other nations') firms.[120] While German manufacturers have prioritised electromobility, their competitive position remains comparatively weak.[121] As one business interviewee stressed, this creates a dual challenge: firms must ensure their own competitiveness while operating with framework conditions—such as energy costs, quality of infrastructure and regulatory stability—that are politically shaped in times of uncertainty and geoeconomic rivalry.[122] Effective public-private coordination is thus essential for the competitiveness of the European automotive sector.

The EV transition also reveals the inadequacy of a purely price-based model of coordination among firms, states and value-chain actors, whose aim should be to secure resilient and strategically autonomous industrial ecosystems rather than merely efficient markets. As one interviewee from civil society pointed out, liberal market economies struggle to internalise resilience-related costs.[123] The EU's anti-subsidy tariffs of up to 35 per cent on Chinese EVs address symptoms of the imbalance but do not fundamentally change the underlying competitive conditions and may also create tensions for European firms producing in China.[124] Technologies that could reduce dependencies—such as electric motors without rare earth elements—already exist

117 Lamy, Pascal/Gonzalez, Arancha/Köhler-Suzuki, Nicolas/Fabry, Elvire (2025). The Road to a New European Automotive Strategy: Trade and Industrial Policy Options. Institut Jacques Delors.
118 Interview EU-A-1, EU representative
119 Eisl, Andreas (2024). A European approach to financing the EU's new industrial policy. Jaques Delors Institute.
120 Statista (2026). Prognostizierter Absatz von Personenkraftwagen weltweit nach Antrieb von 2021 bis 2040.
121 Interview BUS-A-7, business representative
122 Ibid.
123 Interview CS-A-4, civil society
124 Interview DE-A-6, German civil servant

but often fail to scale due to higher costs and insufficient market demand.[125] From an economic security perspective, the challenge is therefore not simply to defend existing markets but to embed resilience into them through proactive industrial coordination.

Relations with China further illustrate the complexity of the economic dimension. As one German official emphasised, China is both a major source of competitive pressure and an integral part of the global automotive value chain.[126] This ambivalence is visible in negotiations over exemptions from EU anti-dumping measures, which indicate continued interest in maintaining stable business relations despite rising geoeconomic tensions.[127] European manufacturers remain deeply embedded in China through joint ventures and production networks, including BMW's cooperation with Brilliance China Automotive and Volkswagen's EV investments in Anhui.[128] The central economic question is thus under what conditions interdependences reinforce rather than erode European competitiveness.[129]

Sovereignty dimension: strategic dependencies and a security mindset

The sovereignty dimension focuses on protecting a state's critical technologies, infrastructures and supply chains against coercion, sabotage and strategic dependency. In the EV sector, this dimension is especially salient because electric vehicles are no longer mere means of transportation; they are increasingly connected, software-defined and deeply embedded in energy and data infrastructures. EVs can therefore be understood as "data centres on wheels" and as potential components of critical infrastructure.[130]

This dimension is closely linked to dependencies on critical raw materials and strategic technologies. China's export restrictions and dominance in refining and processing demonstrate how economic interdependence can be turned into a tool of coercion.[131] As one official argued, authorities must move from a safety-oriented "accident" mindset to a proactive "security and sabotage" mindset when assessing modern industrial risks.[132] In an era in which connected vehicle fleets, charging systems and software updates may be vulnerable to external interference, security concerns extend well beyond the factory floor.[133]

At the structural level, the EU's reliance on highly concentrated external sources for critical raw materials creates significant geopolitical vulnerabilities. While the green transition reduces dependence on fossil fuels, it simultaneously increases demand for lithium, cobalt and graphite.[134] The EU faces a strategic vertical integration gap compared to key competitors[135], while China

125 Interview CS-A-4, civil society
126 Interview DE-A-3, German civil servant
127 Interview DE-A-6, German civil servant
128 Spiegel Institut (2025). Cooperation in the German-Chinese Automotive Industry.
129 Ibid: Interview DE-A-3, German civil servant
130 Interview UNI-A-2, researchers
131 Hilpert, Hanns Günther/Lohmann, Sascha (2026). The return of power politics to the market. German Institute for International and Security Affairs. SWP Research Paper RP 07.
132 Interview DE-A-3, German civil servant
133 Interview UNI-A-2, researchers
134 Interview CS-A-3, civil society
135 Interview EU-A-2, EU representative

dominates major parts of the value chain from extraction to refining and processing. According to the European Commission, China supplies around 65 per cent of the strategic materials needed for electric motors.[136] This concentration creates choke points that can be leveraged in times of geopolitical tension.

In the interviews, both policymakers and industry actors were aware of these risks and are seeking to strengthen domestic capabilities, particularly in battery cell production.[137] However, diversification remains difficult. As one interviewee from civil society noted, investment in alternative sourcing locations is constrained by high economic uncertainty, long time horizons and ambiguity about future technological pathways.[138] Strategic resilience in the EV sector therefore requires the acquisition of alternative sourcing locations as well as the stockpiling of critical materials and a stronger European capacity to monitor and manage strategic dependencies.

These vulnerabilities persist throughout the value chain. Dependencies extend beyond raw materials to machinery, manufacturing technologies and digitally integrated components.[139] In addition, the connectivity of EVs raises concerns about industrial espionage, data extraction and infrastructure control. As interviewees from academia highlighted, vulnerabilities in cameras, sensors and data interfaces could in principle be exploited for strategic purposes, including monitoring business activities or extracting sensitive user information.[140] Strategic sovereignty in the EV sector therefore involves questions of raw materials, data governance, charging infrastructure and digital sovereignty.

Ecological dimension: ecosystem services as hard assets

The ecological dimension recognises that long-term economic security is impossible if a misguided green transition ignores planetary boundaries or creates new forms of environmental dependency. In the EV sector, this dimension is particularly important because the move away from fossil fuels is often presented as a straightforward climate solution, while in practice it shifts environmental pressures onto new domains of extraction, land use and resource intensity.

EVs are indispensable for decarbonising transport. Studies consistently show that battery electric vehicles have a lower carbon footprint over their full lifecycle than comparable combustion-engine vehicles under current energy conditions, an advantage that grows as electricity generation shifts towards renewables.[141] However, the ecological performance of EVs highly depends on how electricity is produced and battery materials are extracted, processed and recycled.

As one business representative highlighted, environmental shocks such as droughts or other climate-related disruptions are no longer distant concerns, but immediate

136 Bobba, S./Carrara, S./Huisman, J./Mathieux, F./Pavel, C. (2020). Critical raw materials for strategic technologies and sectors in the EU. A foresight study. Luxemburg, Publications Office of the European Union.
137 Interview BUS-A-7, business representative
138 Interview CS-A-4, civil society
139 Interview EU-A-2, EU representative
140 Interview UNI-A-2, researchers
141 Deutscher Bundestag (2022). Emissionsausstoß und CO2-Vermeidungskosten von Elektro- und Plug-In-Hybrid-Autos. WD 5 - 3000 - 067/22.

threats to production and supply chain stability.[142] This means that ecological security is not external to industrial resilience; it is one of its conditions. At the same time, the EU risks replacing old dependencies on fossil fuels with new dependencies on environmentally damaging mineral supply chains. If geoeconomic strategy focuses solely on securing quick access to materials without embedding ecological criteria, it may create long-term systemic risks and undermine the legitimacy of the green transition.

The environmental costs of raw material extraction demonstrate this tension with particular clarity. Lithium extraction, for example, comes with high water usage and severe local ecological pressures in already water-scarce regions, as it requires up to two million litres of water per tonne of lithium salt.[143] In addition, mining threatens biodiversity in fragile ecosystems.[144] The rapid growth of EV demand therefore risks reproducing ecological degradation elsewhere unless environmental standards are treated as integral to security rather than secondary constraints.

Several interviewees also suggested that the current focus on large-scale electrification may overlook questions of sufficiency and resource efficiency. Some civil society stakeholders argued that reducing the overall number and size of vehicles—for example through shared mobility and public transport—could lower ecological pressure and reduce external dependencies. Others stressed that circular economy strategies should be embedded in a broader raw materials transition built around repairability, resource efficiency and second-life battery use.[145] Ecological security in the EV sector therefore depends on greater circularity, lower primary resource consumption and closer integration of climate and industrial policy.

Societal dimension: the bedrock of geoeconomic strategy

The societal dimension concerns whether the EV transition can be politically and socially legitimised through participation, fair burden-sharing and credible adjustment mechanisms. This dimension is foundational, as the costs of industrial transformation are not evenly distributed across regions, sectors and social groups. If the EV transition is perceived as producing winners in new technological hubs and losers in traditional industrial regions, the political support necessary for ambitious geoeconomic strategies will erode.

The EV transition is a shock with significant distributional consequences. EV production generally requires less labour than ICE production, especially in the drivetrain and supplier sector, threatening established employment patterns in industrial heartlands.[146] Manufacturing remains central to social stability in Europe, as 18.3 per cent of EU employment is linked

142 Interview BUS-A-2, business representative
143 Lauerer, Matthias (2017). Hinter dem Rohstoff Lithium steckt ein dunkles Geheimnis, das E-Auto-Käufer kennen sollten. Business Insider from 12/8/2017.
144 Deutscher Bundestag (2019). Lithium Vorkommen, Abbau und ökologische Auswirkungen in Bolivien. Sachstand WD 8 - 3000 - 135/18.
145 Interview CS-A-3 and 4, civil society
146 Interview TT-B-1, researcher and also
Opitz, Friedrich/Vinke, Kira/Tiedemann-Friedl, Leon/Courtney, Nick/Winter, Elisabeth/Gohla, Vera/Terrill Whitney (2026). Renewal amidst turmoil. Industrial Heartlands between Rearmament, Recarbonisation and Realignment - Lessons from Germany and the U.S. Das Progressive Zentrum e.V.

to manufacturing and, of that share, 8.1 per cent is concentrated in motor vehicles, trailers and semi-trailers.[147] While the shift to EVs is necessary to preserve the long-term competitiveness of European manufacturing, it also produces short- and medium-term disruptions in the labour market. Interviewees pointed to the political risks of such a disruption. As one EU expert noted, inflation and employment shocks in the industrial sector can fuel status anxiety and political alienation, benefiting right-wing populist actors who exploit the resulting insecurity.[148]

These challenges also apply beyond Europe's borders. The social consequences of raw material extraction and global supply chains—particularly human rights violations, environmental degradation and pressures on Indigenous communities—are directly linked to the legitimacy of the EV transition.[149] Some interviewees pointed to the EU's leverage in setting environmental and human rights standards in partnerships and trade arrangements, especially with new suppliers.[150] A socially just approach to economic security must therefore address both domestic adjustment and global justice concerns, since the credibility of a green and secure transition depends on whether its costs are externalised onto vulnerable workers, regions and communities elsewhere.

Synthesising the four dimensions

The EV case study demonstrates that the four dimensions of economic security do not operate in silos. Figure 4 visualises these findings by presenting the interaction of the economic, sovereignty, ecological and societal dimensions. A tariff that protects the economic dimension but increases living costs or intensifies industrial adjustment pressures may create societal backlash. A strategy focused only on rapid green scaling may deepen raw material dependencies or cause ecological destruction. A policy focused only on strategic autonomy may undermine industrial openness and affordability. The EV sector makes these interdependencies particularly visible. The case demonstrates why economic security must be understood as multidimensional and why policy must be judged according to how it manages trade-offs across dimensions rather than according to narrow sectoral indicators alone.

Germany's current institutional setup remains ill-equipped for this challenge, especially as its economic and security policy continue to be organised in separate silos. The central issue, therefore, is not only whether the EV sector can be protected, but whether it can be transformed in ways that simultaneously reinforce competitiveness, strategic resilience, ecological sustainability and social legitimacy.

147 Eurostat (2023). Sectoral analysis of Manufacturing (NACE Section C), EU, 2023. In: Businesses in the manufacturing sector.
148 Interview TT-A-1, researcher
149 Groneweg, Merle (2021). Weniger Autos, mehr globale Gerechtigkeit. Warum wir die Mobilitäts- und Rohstoffwende zusammendenken müssen. 2nd ed. PowerShift. Berlin.
150 Interview TT-B-1, researcher

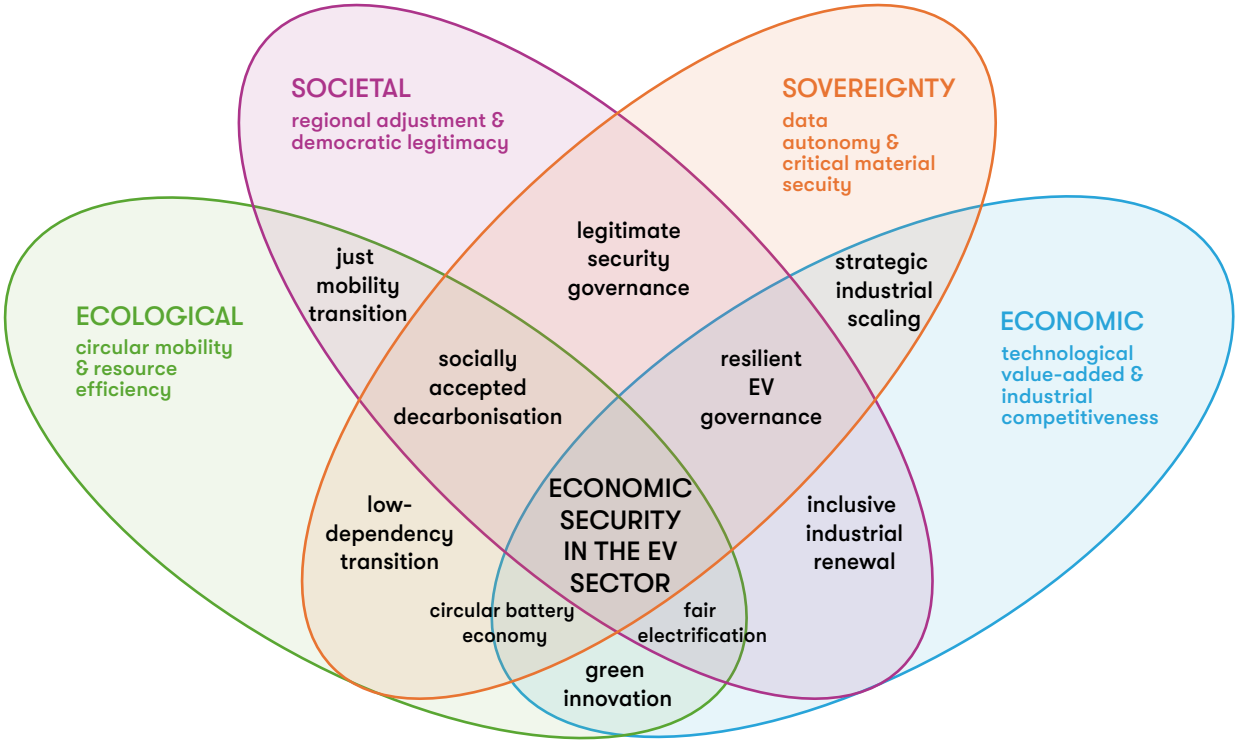

Figure 4: Securing the linchpin of the German industrial base: *The four dimensions of economic security overlap in the case of Germany's EV sector. The transition to electromobility is an industrial challenge, a question of supply chain security, climate compatibility, regional adjustment and democratic legitimacy. For example, green innovation combines technological competitiveness with secure access to critical inputs and a lower-emission transformation, showing how a single policy can strengthen several dimensions at once.*

Inclusive geoeconomics in practice: recommendations for the EV sector

If a strategy of inclusive geoeconomics is not pursued, the likely result is not only lagging capabilities in battery production, software and next-generation vehicle platforms, but also a widening gap between industrial policy, social legitimacy and ecological sustainability. The EV sector would then risk following the pattern of earlier industrial failures in Germany, where short-term reactions proved unable to sustain technological leadership, regional stability or public trust. The challenge for public officials on the national level is therefore to turn the EV transition into a managed process of industrial renewal rather than a sequence of defensive responses.

Step 1: Balance policy objectives across the four dimensions

The first step of inclusive geoeconomics is the alignment of policy objectives. Every measure in the EV sector should be assessed according to the dimension of economic security it primarily advances and its consequences for the other dimensions.

Tariffs on Chinese EVs, for example, may provide temporary protection for the economic dimension by shielding European producers from distorted competition, but they may also affect affordability, the pace of decarbonisation and relations with key partners. They should therefore be treated as temporary enabling instruments and not as ends in themselves.

Inclusive geoeconomics requires that trade defence be linked to a broader industrial strategy. Government support should be conditional on long-term investment in batteries, software and production capacity which include criteria on high-quality employment, worker participation and ecological standards. The goal is not to avoid trade-offs altogether, but to make them explicit and politically manageable.

Step 2: Involve stakeholders through a tripartite coordination model

The second step is stakeholder involvement. Current EV policy is too often shaped through closed interaction between Brussels, Berlin and major manufacturers, even though the EV transition equally affects labour, regional authorities, civil society and local communities. An inclusive approach could include a tripartite coordination mechanism in which business provides market and technological intelligence, labour contributes to workforce adaptation and social legitimacy, and civil society helps monitor ecological and human rights impacts.

A permanent EV Transition Council could institutionalise this coordination, ensuring that decisions on supply chains, industrial subsidies, strategic screening and local investment are evaluated not only according to their market impact but also to their social and ecological implications. Early stakeholder involvement also reduces the likelihood that strategic projects become flashpoints for public conflict.

Step 3: Mitigate distributional effects and safeguard the social contract

The third step concerns the distributional effects of the EV transition which affect firms, workers and regions in different ways. Unmanaged adjustment could intensify the resilience deficit already visible in vulnerable industrial regions. The shift to EVs should therefore be accompanied by dedicated regional resilience funds, targeted retraining and place-based industrial renewal strategies to safeguard the domestic legitimacy on which economic security depends.

In practice, this means linking industrial renewal strategies to labour market policy. Tripartite agreements between the state, manufacturers and trade unions such as IG Metall could help manage reskilling and workforce adaptation before tensions escalate. If the costs of de-risking and industrial upgrading are seen as falling disproportionately on particular regions or lower-income groups, support for the wider geoeconomic agenda will weaken. The societal dimension must therefore be treated as a strategic asset.

Step 4: Ensure multi-level coherence across Brussels, Berlin and the German states

The fourth step concerns institutional coherence. The EV sector is characterised by a governance gap: while trade instruments are largely deployed at the EU level, economic security policy is increasingly

framed at the national level and industrial implementation often depends on German states and regional clusters. Without a stronger coordination architecture, the result will continue to be fragmented responses, subsidy competition and inconsistent signals to firms and workers.

Germany should therefore establish a more permanent coordination structure, whether in the form of an EV Transition Council or a broader National Economic Security Council. Such a body should bring together the relevant ministries, regional authorities and external stakeholders to ensure that economic, strategic, ecological and societal concerns are addressed jointly rather than sequentially. This is particularly important where EU-level industrial and trade decisions have direct regional effects, for example if structural funds are repurposed away from local industrial transformation needs. Inclusive geoeconomics requires institutional coherence precisely because fragmented governance can turn otherwise sound measures into politically and economically counterproductive ones.

Step 5: Move from reactivity to long-term renewal

The fifth step is to craft a positive long-term vision. Policy on the EV sector remains heavily shaped by reactive responses to Chinese competition, raw material disruptions and changing trade conditions. Yet a strategy based only on defensive crisis management will not secure Europe's position in future value chains. Inclusive geoeconomics requires a positive and long-term vision of industrial renewal, one that sees the EV sector not simply as something to be protected, but as a field through which Germany and the EU can build technological leadership, strategic resilience and ecological legitimacy.

A central element of such a vision should be the development of a circular battery economy. This would involve stronger recycling obligations, second-life battery strategies, resource efficiency standards and support for domestic recovery capacity. It would simultaneously reduce dependence on imported raw materials, improve ecological sustainability and strengthen domestic value creation. Combined with investment in next-generation battery chemistry, software capabilities and dependency-reducing technologies such as rare-earth-free motors, this would shift policy from defensive adjustment toward proactive industrial transformation.

5. Policy recommendations for German policymakers

The overarching recommendation of the report is simple: German policymakers should treat the checklist for inclusive geoeconomics—as developed in Chapter 3—as the primary operational tool for assessing any major geoeconomic measure implemented in the context of the EU's Economic Security Strategy or Germany's forthcoming National Economic Security Strategy. Building on the two case studies in this report, the following recommendations translate the checklist into practical guidance and highlight generalisable best practices that can help policymakers strengthen economic security without displacing vulnerabilities into other dimensions.

Step 1: Identify the primary policy objective and its potential trade-offs

Every geoeconomic measure should begin with a clear statement of its primary objective and its expected effects on the other three dimensions of economic security. The checklist asks whether a measure strengthens economic competitiveness, strategic sovereignty, societal cohesion or ecological sustainability, and whether it creates trade-offs that need to be addressed from the beginning. This is important because measures that appear effective in one dimension can generate costs in another, thereby weakening overall resilience.

The Port of Hamburg demonstrates why this step matters in practice. Infrastructure improvements, digitalisation and security screening only strengthen economic security if they are assessed alongside labour stability, climate adaptation and local governance. The EV sector points to the same logic in a dispersed value chain setting, where industrial policy, supply chain diversification and technological innovation need to be balanced with workforce transition, regional adjustment and environmental standards. A general best practice is therefore to define the policy goal first and then evaluate every supporting instrument according to its effects on the other dimensions.

Step 2: Mitigate distributional effects

Geoeconomic measures should be assessed for their distributional consequences before they are implemented, not after political backlash has already emerged. The checklist asks who benefits from the measure, who bears the costs and whether compensation, cushioning or retraining mechanisms are needed. If the costs of resilience are concentrated in particular regions, sectors or social groups, the measure can inadvertently weaken the social foundations of economic security even if it improves strategic autonomy.

Both case studies point toward the same general conclusions. In Hamburg, infrastructure and governance decisions can produce local distributive effects that shape public support for strategic projects. In the EV sector, industrial restructuring and de-risking can generate uneven

adjustment pressures for workers, suppliers and regions. A general best practice is to pair major geoeconomic measures with early transition support, targeted upskilling and place-based compensation so that adjustment costs do not turn into long-term political or social liabilities.

Step 3: Involve stakeholders early

Inclusive geoeconomics requires that relevant stakeholders are involved from the beginning of the policy process, not consulted only after the main parameters have been fixed. The checklist asks whether business, labour, civil society, academia and public authorities at different levels have been included in designing, implementing and evaluating the measure. Early involvement improves information quality, increases legitimacy and helps identify hidden trade-offs before they become implementation problems.

The two case studies reinforce this point. The Port of Hamburg demonstrates that complex infrastructure governance depends on coordination between federal, state and local actors, as well as on dialogue with labour and logistics stakeholders. The EV sector shows that industrial transformation becomes more robust when firms, workers, suppliers and public authorities can anticipate change together rather than react in isolation. A general best practice is to establish permanent stakeholder fora for major strategic sectors to ensure geoeconomic policy is shaped with the affected actors rather than imposed on them.

Step 4: Ensure institutional coherence

Geoeconomic policy should be coordinated across levels of governance and policy fields to ensure implementation does not fragment into disconnected silos. The checklist asks which institutions are responsible, how coordination is organised and whether the measure can be implemented coherently with the given competences and resources. Without institutional coherence, even well-designed measures can be delayed, diluted or contradicted by parallel policy processes.

This is one of the clearest lessons from both case studies. In Hamburg, resilience depends on coordinated governance between the EU, the federal government, the city and local stakeholders. In the EV sector, industrial policy, trade policy, labour policy and climate policy all interact, making isolated interventions ineffective. A general best practice is to create cross-ministerial and multi-level coordination structures for strategic economic security measures with clear responsibilities, regular review points and shared analytical frameworks.

Step 5: Build long-term resilience

The final step is to assess whether a measure supports a positive long-term vision rather than only reacting to immediate shocks. The checklist asks whether the measure remains effective over time and whether it contributes to industrial renewal, technological upgrading, social stability and ecological sustainability. Policies that solve short-term problems while creating new dependencies or legitimacy deficits are not resilient in the strategic sense.

The report's two case studies both show the importance of this long-term perspective. In Hamburg, shore power, climate adaptation and labour stability are not separate policy add-ons but part of a durable resilience strategy. In the EV sector, battery recycling, circular raw-material use, affordable energy

and managed industrial transition are essential for avoiding new vulnerabilities while preserving strategic capacity. A general best practice is therefore to design geoeconomic measures as part of a long-term transformation path, not as one-off crisis responses.

6. Conclusion: the resilience dividend of inclusive geoeconomics

This report has argued that economic security cannot be achieved through defensive trade instruments alone. In an era of polycrisis, geoeconomic competition and weaponised interdependence, the costs of resilience are increasingly borne inside societies, regions and labour markets. When those costs are unfairly distributed, they can produce social friction, political alienation and weakened democratic legitimacy, thereby undermining the strategic posture that protective measures were meant to strengthen. Economic security, therefore, begins at home: it depends on domestic cohesion, public buy-in and governance arrangements that can sustain geoeconomic trade-offs over time.

This report makes three principal contributions to the debate on economic security:

First, it offers conceptual clarification. By distinguishing economic security as the overall policy objective and inclusive geoeconomics as the appropriate strategy with which to achieve it, the report provides an analytically sharp and politically usable framework. It moves beyond a narrow understanding of economic security as the protection of supply chains or technological sovereignty and develops a four-dimensional model combining economic, sovereignty, societal and ecological dimensions. This broader perspective helps identify trade-offs early in the policy process and show how measures can strengthen resilience across dimensions.

Second, the report clearly demonstrates that the societal dimension of economic security is not a normative add-on but a strategic requirement. Domestic legitimacy is a precondition for any effective geoeconomic strategy. If households, workers, regions or sectors bear disproportionate adjustment costs, economic security measures may generate resistance rather than resilience. Inclusive geoeconomics responds to this problem by making distributional effects visible, treating stakeholder involvement as essential and recognising social cohesion as a form of strategic capacity. In this sense, inclusive geoeconomics generates a resilience dividend: supported workforces are more adaptable, cohesive communities are less vulnerable to coercion and policies grounded in legitimacy are more likely to survive electoral cycles and external shocks.

Third, the report offers practical guidance to German policymakers within EU multi-level governance. Economic security policy is designed at the European level, but it is implemented nationally, regionally and locally. German policymakers therefore play a central role in translating EU economic security goals into practice. The report's target audience is German decision-makers at the federal, state and local levels who are responsible for implementing economic security in a way that is coherent, legitimate and place-sensitive. The proposed checklist for inclusive geoeconomics is intended as a practical tool for this task. It helps assess whether a policy measure strengthens all four dimensions of economic security, whether relevant stakeholders have been involved, whether distributional effects have been addressed, whether institutional responsibilities are clear and whether the measure supports long-term resilience.

The report's two case studies illustrate how these abstract questions are relevant in concrete domestic settings and how they can be translated into operational recommendations. The Port of Hamburg case study illustrates how economic security policy should be implemented at a strategic infrastructural node where trade, labour, urban politics, climate adaptation and critical infrastructure protection intersect. The EV sector shows the same challenge in a dispersed industrial value chain shaped by technological competition, raw material dependency, digital vulnerability and regional adjustment pressures. In both cases, the five-step inclusive geoeconomics checklist is applied to develop concrete recommendations on policy alignment, distributional mitigation, stakeholder involvement, institutional coherence and long-term renewal. Together, the two cases demonstrate that the success of a geoeconomic strategy is not determined by design alone, but by the ability of policymakers to operationalise economic security in ways that are coherent, legitimate and resilient across different domestic settings.

The report shows how inclusive geoeconomics is able to ensure economic security is sustainable in the long term. The resilience dividend is not an abstract promise, but the strategic return on embedding inclusion into geoeconomic policy from the outset. When economic security is pursued without domestic legitimacy, the result may be short-term protection but long-term fragility. When it is pursued inclusively, economic strength, sovereignty, ecological sustainability and social cohesion reinforce one another. A resilient economic order in Europe and long-term economic security in Germany will not be built by protecting markets alone, but by ensuring that the geoeconomic turn strengthens the democratic fabric on which Europe's security ultimately rests.

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