BALTIC RIM ECONOMIES SPECIAL ISSUE ON GERMANY

December 2024

TOBIAS FELLA Germany and nuclear deterrence under Trump II



A C H I M W A M B A C H Revival of industrial policy in Germany



STEFANIE WODRIG Hamburg's future with the Baltic Sea Region



MICHAEL PAUL The Arctic - a challenge for Berlin





To receive a free copy, register at www.centrumbalticum.org/en

BALTIC RIM Economies

The Centrum Balticum Foundation publishes the Baltic Rim Economies (BRE) review which deals with the development of the Baltic Sea region.

In the BRE review, public and corporate decision makers, representatives of Academia, as well as several other experts contribute to the discussion.

Centrum Balticum
ISSN 1459-9759
Editor-in-Chief Kari Liuhto (responsible for writer invitations)
Technical Editor Terhi Luukkainen
Centrum Balticum Vanha Suurtori 7 FI-20500 TURKU, Finland
www.centrumbalticum.org/en
centrumbalticum@centrumbalticum.org
Data protection description
CENTRUM BALTICUM

EXPERT ARTICLES

Stefan Meister	5
Germany's half-hearted Zeitenwende	
Jan Feller & Friedrich Von Der Hagen "Zeitenwende" in the German economy	6
Sarah Kircberger Scholz out: a new hope for 'Zeitenwende'?	8
Jörg Hackmann Germany and the Baltic Sea Region after the "Zeitenwende"	9 he
Patrick A. Mello Zeitenwende at twilight: Will Germany's sh last?	10 nift
Tim-Åke Pentz Expulsion from the German comfort zone	11
Minna Ålander Germany at a crossroads	13
Michael A. Hansen The enduring influence of the far-right Alternative for Germany (AfD)	14
Alexandra M. Friede What the German public thinks and does	15
Tuomas Iso-Markku CDU/CSU's crucial role in a changing party system	16 ′
Sebastian Jungkunz The nature and origins of political extremi	17 sm
Leoni Heyn & Felix Neumann Prince and Tsar: An antidemocratic Germa Russian alliance	18 n-
Arvid Jurjaks Uncertain snap election as new parties rise	20 e
Kimmo Elo German foreign policy between a rock and hard place	21 d a
Hans-Georg Ehrhart Germany and Europe after the Ukraine Wa	22 r
Tobias Fella Germany and nuclear deterrence under Trump II	23
Jens Suedekum Germany's stalled growth amid uncertaint	24 y
Vesa Vihriälä A structural slump slows down the Germa	25 n

economy

Volker Wieland Inflation, stagnation and the need for cha	27 inge
Sebastian Płóciennik Germany in crisis: This is not a cyclical downturn	28
Markus Jaeger Germany should reform its debt brake	29
Michael Grömling Far from the path to prosperity	30
Marcel Hadeed The cracks in Germany's economic foundation	31
Arto Lahti German success recipe: Monopolistic competition	32
Klaus Schrader Challenging the shortage of skilled worke	33 ers
Thomas Steger Employee ownership – the time is ripe!	34
Kristine Kern & Wolfgang Haupt German cities and climate change: An Eas West divide?	35 st-
Frauke Wiese Strategies for achieving climate neutrality Germany	36 / in
Michael Labelle Expanding the ring of European energy security	38
Achim Wambach Revival of industrial policy in Germany	39
Niklas Becker Germany's energy transition	40
Georg Zachmann Energy in the Baltic Sea region: From Russ dominance to regional integration?	41 sian
Axel Mattern German ports are critical infrastructure	42
Wim Naudé The twilight of German innovation	43
Peter N. Backé Your next German car will be made in Chi	44 na
Nikolaus Werz The limits of subnational foreign policy: T case of Mecklenburg-Vorpommern	45 he

David Löw-Beer Bridging regional sustainability gaps	46
Kevin Borchers German municipalities for global sustaina	47 ability
Wolf Born MV steps up its cooperation in the Baltic s region	48 Sea
Stefan Musiolik Baltic Sea cooperation made in Northern Germany: The BSSSC chairmanship of Schleswig-Holstein	49
Bernd Jorkisch Germany focuses on the Baltic Sea Region	50 n
Jochen Lamp & Georg Nikelski Investing in Baltic biodiversity – more urg than ever!	51 Jent
Stefanie Wodrig Hamburg's future with the Baltic Sea regio	52 on
Damian Szacawa & Kazimierz Musia Critical junctures and changing identity o Baltic Sea Region	
Oliver Zielinski Baltic Sea research: From understanding t perspectives	55 to
Michael Paul The Arctic – a challenge for Berlin	56
Franziska Kapteina Cultural and creative industries in Germa and beyond	57 ny
Irene Bark Building bridges through cultural collabo	58 oration
Aline Mayr Empowering youth for a resilient Baltic Se Region	59 ea
Joybrato Mukherjee Academic cooperation with China: A reali approach	60 istic
Markus Meier & Karol Kulinski Scientific cooperation under changing geopolitics	61
Kari Liuhto Germany: The most important foreign tra the Baltic Sea Region	63 Ider in



Centrum Balticum

BALTIC RIM Economies

To receive a free copy, register at www.centrumbalticum.org/en

Germany's half-hearted Zeitenwende

Expert article • 3687

hile German Russia policy has focused on rapprochement and reconciliation for decades ("change trough interweavement"), the large-scale war against Ukraine since 2022 has led to a shock moment in German foreign policy. Just a few days after the invasion, Olaf Scholz announced a turning point ("Zeitenwende") in security policy in a government statement. Despite all the hesitation in supporting Ukraine and making security policy adjustments, the German government quickly cut itself off from Russian gas, built LNG terminals and accepted high economic costs in supporting massive European economic sanctions against Russia. As a result, the central foundation of German-Russian relations, which was based on close economic and energy policy interdependence, collapsed. Social and political exchange was also reduced to a minimum. Europe thus witnessed a structural decoupling in the relationship between the two states.

In the view of the German government, Russia has become the greatest security threat to Europe. Even before the comprehensive attack on Ukraine, Moscow was already waging a hybrid war against the West - including disinformation campaigns, hacker and sabotage attacks as well as massive intelligence activities in Germany and other European countries. Nevertheless, it seems to have taken a large-scale war of aggression for relevant sections of the elites and society in Germany to recognize the danger posed by Putin's regime.

Although the massive military and financial support for Ukraine since the "Zeitenwende" declaration and the 100 billion special fund for the Bundeswehr show a fundamental change in German foreign and security policy - away from "Russia first" and towards a focus on Ukraine - there still seem to be no real mental and strategic turnaround. The rise of the right-wing populist Alternative for Germany and in particular the nationalsocialist party Sarah Wagenknecht Alliance with demands for an end to sanctions against Russia and the war at practically all costs shows that there is still fear among the German population of being dragged into war and no serious willingness to bear the necessary costs for European security. Even though these parties offer no solutions for ending the war, apart from the absurd and irresponsible demand to stop supplying weapons to Ukraine, they received enormous support in the regional elections in three eastern German states in September.

This is also a consequence of the unclear position of the Federal Chancellor and the different signals sent out by the traffic light coalition regarding support for Ukraine. On the one hand, Olaf Scholz has explicitly supported arms deliveries to Ukraine, while on the other hand he is not prepared to deliver Taurus cruise missiles to Ukraine or support Ukrainian military strikes on military infrastructure on Russian territory. He is staging himself as a peace chancellor to respond the rapid decline in his popularity, which has more to do with his lack of leadership than with his Ukraine policy. The German government continues to act too reactively, concentrating on crisis management and, like the US leadership under President Biden, trying to avoid a major escalation with Russia. This shows that many in Germany still do not understand the logic of Russian policy. From Putin's point of view, compromise equates to weakness; appeasement and hesitation encourage him to further aggression. The Russian elites thinks in win-lose categories; the two Minsk agreements and Germany's growing dependence on Russian gas after 2014 have defakto invited Putin to launch a full-scale attack on Ukraine. Russia is

militarily and economically much weaker than NATO and the EU but is smartly exploiting the weaknesses and indecision of its opponents to take advantage of this. German society and the elite are particularly vulnerable to this manipulations.

The demand for peace negotiations by parts of the German population and political elite contradicts the current reality on the battlefield. Last but not least, the desire for ending the war and for peace, regardless of the conditions, has opened up a vacuum that populist parties are trying to fill. The re-election of Donald Trump will strengthen Putin's belief that he can negotiate a deal with Washington at the expense of Ukraine and that US support for Ukraine could decrease massively. Olaf Scholz's decision to sack his finance minister and call for a vote of confidence shows that he has understood that the election of Donald Trump means that Germany and Europe must become capable of taking actions. This governing coalition is not able to implement the necessary economic and security policy reforms Germany needs. With new elections in March and the Christian Democrats coming to power, it is to be hoped that Germany will regain its capacity for reform and leadership. Until then, however, Vladimir Putin will use the moment in Washington and Berlin to conquer as much territory as possible in Ukraine.



Stefan Meister Head

Center for Order and Governance in Eastern Europe, Russia and Central Asia, German Council on Foreign Relations (DGAP) Germany

meister@dgap.org



"Zeitenwende" in the German economy

Expert article • 3688

t is November 6, 2024. Donald Trump has just been elected U.S. President, and the next day, Germany's "Progress Coalition" government breaks up over economic and financial policy disputes. Germany faces tough times, caught between economic stagnation and growing global competition, especially from China and India, while its transatlantic partner, the U.S., is getting a president pushing for tariffs and trade wars. Meanwhile, in Eastern Europe, Russia is waging an imperial war against Ukraine to sever its political ties to the West. Europe's democracies are under pressure: economically, militarily, and politically. Germany, as Europe's largest economy, is particularly in the spotlight.

Transformation and "Zeitenwende"

Chancellor Olaf Scholz famously described this development as a "Zeitenwende" (turning point) in late February 2022, especially in response to Russia's war of aggression. It is about whether power will override law, deals will override a rule-based world order, and whether Europe's democracies have the strength to resist this trend. The *Zeitenwende* follows a series of global crises: the climate crisis, the COVID-19 crash, subsequent global supply chain disruptions, and rising inflation. Then, as a result of halted Russian gas deliveries: the energy and price crisis in Germany and most parts of Europe.

It is important to view German economic data in this context. And the data shows: German economy has shown resilience. The DAX stock index companies for example are paying record dividends the second year in a row. Germany is in a transformation towards digital business models and a sustainable economy and has already made some remarkable steps: Being a pioneer of the "Energiewende" (energy transition), renewables powered 58% of Germany's energy consumption by mid-2024, up from 41.5% in 2021, driven by significant vertical integration in the wind industry, where mergers have streamlined supply chains and increased market professionalism.

German economy: Transforming traditions

Germany's traditional sectors, including the automotive, steel, and chemical industries, illustrate the scale of this transformation. Leading car makers are introducing more electric and hybrid vehicles, financing their development with margins from combustion engine car sales. This shift to electric vehicles will lead to major changes for German auto suppliers, as electric motors are simpler to construct and produce than combustion engines. At the same time, hydrogen cars are being announced for 2028. Suppliers, too, are focusing on digitalization: Engineering company Bosch is nowadays employing over 10.000 software developers. Overall, business models are moving toward lifecycle revenues, with a significant portion generated through software features sold throughout the product's lifecycle. The current poor sales figures of German manufacturers are mainly due to the softened Chinese market. However, industry experts currently see a recovery in the global car market, and Germany's car production rose by 17% in October 2024 (year on year) while exports are up a stunning 51%. This will help German manufacturers continue to push forward their transformation.

Baltic Sea Region as Europe's Green Powerhouse

The energy-intensive steel and chemical industries are also undergoing transformation where the green transition is a business reality rather than a question of politics: China is rapidly increasing its green steel capacities, and it is unlikely we'll see import tariffs on Chinese green steel to protect European grey steel.

As an immediate reaction to the energy crisis, Germany has rapidly built LNG terminals to meet demand. Germany's long term energy transition moving away from coal-fired and nuclear power, the latter long opposed by a majority in Germany due to unresolved nuclear waste issues—relies primarily on renewable energy. The German economy is aligned with and supportive of this green transformation. But current energy capacities are insufficient. Therefore, the country is planning medium- and long-term imports of green hydrogen and -derivatives from renewable sources. This brings the Baltic Sea region into play.

Studies show that Finland has by far the most potential among Baltic Sea countries for green hydrogen production. According to most estimates Finland will have large surplus capacities if it continues expanding especially offshore wind power. Even as we expect new foreign investments consuming green energy, the country will likely be able to produce much more green energy than needed for its own industries - becoming a powerhouse for Europe's decarbonization. Planned investments in hydrogen projects have already reached over 13 billion euros. The Finnish grid operator Fingrid has received applications for over 400 GW of renewable energy connection capacities, while Finland currently has under 8 GW in wind power.

Germany's transformation in a European context

So, will Europe still be able rely on Germany's economic strength in the future? Despite recent "polycrises," economists view Germany as merely stagnating, not in decline. For Germany's European partners, it makes much sense to support the competitiveness of their most important export market, e.g. with Finland's energy sector providing Germany with clean hydrogen from green wind energy. German investors see potential in the northern Baltic Sea and are already financing many Finnish wind



Expert article • 3688

farms. In the coming years, Finland could become a system-critical partner for Europe's largest economy—this has security implications as well. Since Germany is Finland's most important trading partner, boosting Germany's competitiveness would simultaneously strengthen Finnish trade and security interests.

One thing is certain: Germany's *Zeitenwende* is also a European turning point. Together, the countries of the Baltic Sea region can play a central role as a driver of European competitiveness and improve their own economical and security situation at the same time.



Jan Feller

Managing Director AHK Finnland | German-Finnish Chamber of Commerce Finland

jan.feller@dfhk.fi



Friedrich von der

H a g e n Senior Manager Communications AHK Finnland | German-Finnish Chamber of Commerce Finland

friedrich.vonderhagen@dfhk.fi



SARAH KIRCHBERGER

Scholz out: a new hope for 'Zeitenwende'?

Expert article • 3689

Ihe sudden breakdown of Germany's government coalition on November 6 marks a turning point in Germany's awakening from decades of geopolitical slumber. Outside observers could be forgiven for thinking that under Scholz - notwithstanding his "Zeitenwende" speech of 2022 - such an awakening has failed to occur. This is partly true, particularly for his own party. German Social Democrats have stubbornly resisted calls for a critique of Germany's problematic Russia policies. Unlike the CDU, which found itself in the opposition since 2021 and conducted a stock-taking of the Merkel era's failings, the SPD has kept many figures associated with "Ostpolitik" in power. Frank-Walter Steinmeier, formerly Foreign Minister under Merkel, remains State President, while Mecklenburg-Vorpommern's Governor Manuela Schwesig (whose methods while pushing for Nord Stream 2 are subject to a parliamentary inquiry) remains in office. Meanwhile former Chancellor Gerhard Schröder, a declared friend of Putin, the driving force behind Nord Stream 2, and - until May 2022 - a board member of Rosneft, remains an influential SPD elder. According to the current SPD secretarygeneral, Schröder retains "a place inside the party" while his "lifetime achievements need to be viewed holistically".

Historical and economic ties to Russia are particularly strong in East Germany due to grudges held by disenfranchised former GDR elites who saw reunification with West Germany as a hostile takeover. But similar ties are by no means nonexistent in some of the Western federal states, where Russian gas connections likewise run deep. So far, no systematic investigation into elite collusion with Russian energy networks has been conducted.

A recent scandal at Federal President Steinmeier's residence further illustrates how far the SPD still is from shedding its Russophile leanings. A speech by the East German public intellectual Marko Martin delivered on the 35th anniversary of the fall of the Berlin Wall at Castle Bellevue directly addressed the problematic legacy of Steinmeier's Ukraine and Russia policies as Foreign Minister and deplored his disregard for Germany's Eastern neighbors' security interests when pursuing Nord Stream. Steinmeier aggressively confronted Martin after this speech, leading to calls for his resignation as Head of State for his inability to endure wellfounded public criticism with the necessary decorum.

It seems Scholz's ambiguity in the support of Ukraine - his stalling the delivery of weapon systems in a "too little, too late" fashion; never committing explicitly to the goal of Ukrainian victory for fear of "escalation", while constantly reaching out to Putin for "negotiations" - was not so much an attempt to mediate between an anti-military public and his own government. Rather, he was mediating between his own party's leftist, Russophile wing and the rest of his government coalition, where a few isolated SPD figures, but particularly the Greens and some Liberals pushed for stronger support for Ukraine and actual military reform at home. As such, the SPD's unresolved identity crisis came to hold all of German security policy hostage. To this day, the SPD remains an obstacle for Germany's development into a more responsible and more responsive security policy actor at the heart of Europe and NATO. The breakdown of the Scholz government and early general elections are therefore a welcome prospect, even though it will be many more months with a lameduck chancellor Scholz still in power.

Meanwhile it may come as a surprise that average Germans are far ahead of the SPD's security policy thinking, which seems increasingly out of touch with the public mood. A recent representative survey, the Körber Foundation's "Berlin Pulse 2024/2025" indicates that attitudes to security and defense have gone through a remarkable shift. According to the survey, 65% now think that raising defense spending to 3,0-3,5% of GDP would be "just right" (50%) or even "too low" (15%) – whereas now, Germany spends a mere 2% after many years failing to reach even that baseline. Further, 57% of the German respondents were in favor of military support for Ukraine (compared with just 41% of American respondents). And a full 82% see Russia as a "military threat" to Germany. Furthermore, in a May 2024 survey of 25,000 respondents conducted by East German state broadcaster MDR, a whopping 61% were in favor of reintroducing military conscription, which had been halted in 2011.

Predictably, ending conscription had increased the disconnect between society and the Bundeswehr, while decades-long underfunding and political neglect resulted in recruitment and equipment issues and a shrinking defense-industrial base. The political focus until 2022 had been on a progressive reform agenda rather than effectiveness of the Bundeswehr as a fighting force. The risk of going for a professional military in a pacifist-leaning country like Germany with no strong popular support for defense had been pointed out by experts for years, but reintroducing conscription once halted seemed impossible in light of popular opposition. With new and strong popular support for reintroducing it in some form, this is now on the election platforms of both CDU and SPD and therefore likely to become policy under a new government.

Chances for the SPD to regain its leading role in a new government coalition seem currently remote. Depending on the possible majorities, however, the SPD might yet enter a new coalition government – as junior partner of the expected election winner, the CDU. Scholz is likely to be out of the picture by then, but the dominance of leftwing-leaning Russophiles is likely to continue even in case Defense Minister Boris Pistorius should become SPD leader. Unless the SPD loses access to government resources for a while and is forced to conduct a soul-searching akin to the CDU's internal reckoning process during a time-out in the opposition, chances seem slim that the SPD could become a more constructive force for German or, for that matter, European military security.

No matter the exact electoral outcome, the end of the Scholz government presents a glimmer of hope for a more grown-up, more realistic, and less ineffective German security policy. It would not come a day too early.



Sarah Kirchberger Director Institute for Security Policy, Kiel University (ISPK) Germany



8

JÖRG HACKMANN

Germany and the Baltic Sea Region after the "Zeitenwende"

Expert article • 3690

ince the turn of Russia under Putin towards confrontational politics in the "near abroad", which became most visible in 2007 with his speech at the Munich Security Conference and the Russian cyber-attacks on Estonia after the relocation of the "Bronze Soldier" in Tallinn, a focus on geopolitics returned to the Baltic Sea Region, but did not yet dominate debates about cooperation in the BSR before 2022. This situation then however has fundamentally changed with the massive Russian attack on Ukraine since Feb 24, 2022, when Finland and Sweden decided to join NATO. After chancellor Olaf Scholz" Zeitenwende" speech three days later, it seemed that the German perception of the new Baltic securityscape has changed, too. The decision from June 2023 to deploy a brigade of the Bundeswehr in Lithuania to strengthen the eastern flank of the NATO could be understood as part of a new approach to BSR politics.

But do we really see a "Zeitenwende" in German politics towards the BSR? To answer this question, it is useful to look first at the German actors: German BSR politics is largely confined to the regions on the Baltic rim including the states of Schleswig-Holstein, Mecklenburg-Vorpommern, and also Hamburg, although the city is not directly bordering the Baltic. The federal government becomes more involved from time to time, when having the presidency of the CBSS, for instance. A look at the annual CBSS reports from these years finds highlights on regional and economic cooperation, democratic institutions, and NGOs during the first German presidency in 2000-2001. They were followed by energy security (in the sense of secure energy supplies), and coherence (in particular with regard to Russia) during the second presidency in 2011-2012, and offshore wind energy, underwater munitions, and youth participation during the last one in 2022-2023, which was already under the impact of Russian attack on Ukraine. If we the add the EUBSR Forum organised by Germany in 2017, then we may add connectivity as another catchword. A closer look at regional German activities on the level of the states would find stresses particular on various environmental issues as green shipping, sustainable energy supplies, and - last but not least - youth initiatives.

These observations, including even those from 2023, seemingly do not support the notion of a "Zeitenwende", apart from verbal condemnations of the massive Russian attack on Ukraine. Admittedly, changes are visible, for instance energy security has received a new meaning, though rather implicitly. New threats for the undersea infrastructure in the Baltic, as suspicious activities by Russian vessels on the Baltic, are partly reflected, but still, one can hardly say that they are dominating the German approach towards BSR politics. What could be the reasons for this observation? First, neither the German states nor the transnational institutions in the BSR apart from NATO have competencies in military security, so they rather focus on civil issues, although securitization of environmental and energy topics has been a relevant issue already for decades. Second, the blowing up of three of the four pipes of Nord Stream reveals an ambiguous approach of German politics. Whereas already the dysfunctionality of the pipelines as a result of the sabotage in September 2022 makes a renewal of Russian gas exports through them highly unlikely for the foreseeable future and might provide an argument for strengthening regional and sustainable energy supplies, we do not see many German politicians following such an argument. Even more, the opportunity to discuss, whether the Nord Stream project was a political error right from the beginning in the 1990s, has hardly been taken up in German politics.

In fact, the criticism from Poland and the eastern Baltic states already of Nord Stream 1, was not perceived in the German public. Germany's attitude towards the project followed the concept of "Wandel durch Handel" with Russia. Whereas Angela Merkel and Olaf Scholz stressed the allegedly pure economic nature of the project even of Nord Stream 2, President Frank-Walter Steinmeier defended the pipeline still in spring 2022 as a peace project that builds bridges between Europe and Russia. In fact, such an attitude is a legacy of the reconciliation politics towards Russia of the 1990s, which shapes large parts of the political spectrum in Germany (West and East). In addition, the government of Mecklenburg-Vorpommern tried to influence the public attitude towards the pipeline project with a Foundation on Climate and Environmental Protection founded in 2021 and largely financed with 20 million € by GAZPROM in order to circumvent a looming US embargo on finishing Nord Stream 2. After the massive Russian attack, a controversy emerged, whether to dissolve the foundation or keep its focus. The motivation for the attempts to dissolve the foundation, however, were less the confession of a mistake by the Prime Minister, but the fear for bad publicity. Now, the chairman of the foundation, a former prime minister of the state, is trying to keep the foundation alive by transforming it into a private corporation.

The Nord Stream case demonstrates the dilemmas of German BSR politics: Although the situation since 2022 led to decreasing the energy dependence from Russia and from fossil energy and thus goes along with the envisioned "Energiewende" towards carbon-free energy, this turn seems to be largely disputed in the public sphere. The same must be said about the change towards a new focus on security issues connected to BSR politics, which is also highly contested in the governing SPD, whereas the Green party seems to have less problems to develop a new focus on regional security instead of primarily environmental issues in the BSR.

This is not to say that political elites are totally neglecting the need for a change in BSR politics, as shows an interview with Johannes Schraps, member of the Bundestag and head of the German delegation to BSPC, from September 2024, where he underlines the necessity for more efforts in strengthening regional security. But whether the "Zeitenwende" comes with the necessary speed, only the future will tell us.

Jörg Hackmann

Professor Department of History, University of Szczecin Poland

Director International Center for Interdisciplinary Studies Poland

jorg.hackmann@usz.edu.pl



PATRICK A. MELLO

Zeitenwende at twilight: Will Germany's shift last?

Expert article • 3691

ermany and its foreign and security policy are in a transitional phase. The governing coalition of Social Democrats, Greens, and Liberals collapsed in November 2024 due to disagreements over the federal budget and the constitutional debt brake, in the context of ongoing financial and military support for Ukraine. General elections are scheduled for February 2025. In this politically charged environment, core aspects of the *Zeitenwende*, along with broader foreign and security policy issues, are expected to be points of contention in the election campaign.

This trend was already evident in recent regional elections in Brandenburg, Saxony, and Thuringia, where the far-right Alternative für Deutschland (AfD) and the new populist Bündnis Sahra Wagenknecht (BSW) achieved significant electoral gains. The BSW successfully centered its electoral campaign on criticizing the government's military support for Ukraine and the planned deployment of US medium-range missiles on German soil. Although both policy issues lay beyond the realm of regional politics, the BSW effectively tapped into public fears and frustrations, which were especially prevalent among East Germans.

Germany's Zeitenwende, or "watershed," was first articulated by Chancellor Scholz on February 27, 2022, just three days after Russia's fullscale invasion of Ukraine. In a special session of the Bundestag, Scholz described Russia's aggression as a historical turning point, announcing sweeping changes to German foreign policy. These included weapons deliveries to Ukraine, substantial increases in defense spending—including a €100 billion surplus budget requiring constitutional adjustments procurement of new military capabilities like armed drones and F-35 fighter jets, the initiation of European defense projects, and strengthened NATO deployments on the eastern flank.

The Zeitenwende became emblematic of a broader transformation in Germany's foreign policy, as I described in more detail elsewhere. Scholz's address and subsequent statements signaled a departure from the country's traditional role as a civilian power, characterized by skepticism toward military force and restraint in military interventions. Instead, Germany embraced a shift toward hard security and deterrence, with Scholz declaring his country "willing, together with its allies, to defend every square meter of NATO territory" and aspiring to become "a guarantor of European security." Foreign Minister Annalena Baerbock echoed this sentiment, advocating for Germany to abandon its long-standing "unique restraint" in foreign and security policy.

The coalition of SPD, Greens, and FDP moved to end long-standing debates on issues such as procuring armed drones, Germany's participation in NATO's nuclear sharing, exceptions to the principle of not delivering weapons into conflict zones, and meeting NATO's 2 percent defense spending target (the Wales pledge). However, the implementation of the *Zeitenwende* has fallen short of its ambitious rhetoric. Many proclaimed changes either failed to materialize or were diluted during the political process. Party-political contestation hindered progress, while bureaucratic routines and administrative inefficiencies failed to adapt to the urgency of the moment, causing delays and obstruction.

Nevertheless, Germany has made significant strides in a comparatively short timeframe. Material changes include a shift from providing nonlethal assistance to supplying Ukraine with heavy weaponry, including howitzers, battle tanks, and air defense systems. The defense budget has seen drastic increases, supported by the €100 billion surplus fund, and the Bundeswehr has committed to permanently stationing a brigade in Lithuania to bolster NATO's eastern flank. Beyond defense, Germany has enacted significant policy changes in other areas. The decision to halt the Nord Stream 2 pipeline marked a reversal for the SPD, which had long defended the project as a "purely economic" enterprise. In response to the Russian invasion, Germany diversified its energy imports and implemented substantial changes in the energy and trade sectors. Refugee policy has also evolved, driven by the activation of the EU's Temporary Protection Directive and adaptations at local levels. Lastly, Germany's foreign policy self-conception is undergoing a transformation. This shift is reflected, among others, in Scholz's Zeitenwende speech, the adoption of a feminist foreign policy, championed by the Greens and Foreign Minister Baerbock, and in the new National Security Strategy-the first document of its kind for Germany.

As Germany stands at the twilight of its *Zeitenwende*, the question remains whether this transformative shift in foreign and security policy will endure amid domestic political upheaval and external pressures. The upcoming general elections will play a decisive role in shaping the future of this pivotal moment in German history, determining whether the policy changes that have been initiated since 2022 can be sustained or fade into twilight, overshadowed by competing domestic and international pressures.



Patrick A. Mello

Assistant Professor of International Security Department of Political Science and Public Administration, Vrije Universiteit Amsterdam The Netherlands

p.a.mello@vu.nl



TIM-ÅKE PENTZ

Expulsion from the German comfort zone

Expert article • 3692

n September 11 this year, close to three in the morning Dresdens Carola-Bridge collapsed. Luckily no one was harmed. Three to four hours later in the daily rush-hour traffic there would have been casualties. The collapsed bridge is a picture with symbolic meaning which got a lot of media coverage across Germany. Why? Because it did not collapse out of the blue. The building fabric was dilapidated and corroded. This bridge is not an isolated case. Throughout the country, bridges are rotten, railway tracks in need of repair, roads are in a sorry state and school buildings are crumbling.

How does this fit with the fact that Germany is a strong country? At least in terms of GDP, she is the third largest economy in the world, at around 4.5 trillion USD. Despite this at least on the surface apparent robust position, we are currently experiencing a great deal of uncertainty. One indicator: Germans are spending less. "Angstsparen" this is called - saving money out of "Zukunftsangst".

It's a reaction to what can also be described as the expulsion from the German comfort zone. A comfort zone describes an area of private or social life that is characterized by ease and freedom from risk. It is a psychological state where people perceive they are in control of their environment, experiencing low levels of anxiety and stress. The problem: Germans feel, this zone is getting smaller and probably it will even collapse. A result of an intermingling of endogenous and exogenous stressors.

The endogenous, homemade stressors include among others:

- the insufficient spending and misguided policies over the last years sometimes decades on transportation infrastructure, defence, civil defence, housing and the education system
- the reliance on cheap energy aka Russian natural gas to keep energy costs of industrial production as low as possible and thus continue to reap profits, without the pressure to modernize, streamline, developing technologies and opening new markets
- One may also add a failed or at least naive and costly immigration and asylum policy that results in part in the formation of parallel societies instead of attracting needed integration-willing skilled workers with or without families from abroad.

The exogenous stressors include all kinds of dependencies, supply chains disruptions and unsolved conflicts. For example:

- Germany's asymmetric dependency on China. This applies to sales markets (automotive industry and machinery) and the import of goods, some of which are critical for domestic production, but also to pharmaceutical products, like antibiotics. In the event of a crisis, this would be a strategic and political burden.
- The Russian war of aggression against Ukraine which has painfully shown the bleak state of Germany's defence readiness and civil protection and the completely misguided appeasement policy.

 The possible 'withdrawal of love' on the part of the incoming US administration in military and economic matters. After all, Germany is dependent on the cooperation with the USA in defence and counterterrorism matters and has so far enjoyed all the advantages of a 'peace dividend' in recent decades like cuts in defence spending and the suspension of compulsory military service.

These endogenous and exogenous stressors have certainly increased the level of anxiety and stress among Germans. But there is even worse to come: The concern about living standards is a growing issue for most of the population. In the run-up to the European elections in spring, Infratest dimap's regular surveys found that 50 per cent of people were very concerned that they would no longer be able to maintain their standard of living in the future. These are people with average incomes, families who, until a few years ago, were able to make ends meet and even afford the occasional treat, and who also pay taxes. This class has made Germany great economically. Now it feels left alone in its daily lives.

In times of uncertainty, good leadership and good communication skills may save the day here. However, if one is to believe experienced commentators and analysts in Germany, the constant bickering of the government under Chancellor Scholz has not only cost nerves and reputation at home and abroad. It has also set in motion a self-destructive negative spiral. Now Scholz' government, the self-proclaimed "progressive coalition" of Social Democrats (SPD), Greens (B90/Grüne) and Liberals (FDP) finally imploded.

"Anyone who orders leadership from me will get it," Olaf Scholz once said. That is apparently not what happened. In November 2024, 72 percent of citizens say in a survey made by INSA that they are dissatisfied with the work of Chancellor Scholz. 59 percent even believe that he behaves rather disrespectfully towards citizens. These are disastrous figures. What remains of the coalition are hollow phrases and ambitious wishes, which, although not all entirely wrong, unfortunately crash against the international, economic and political reality. This does not make you look stronger, but weaker. It undermines the economy and morale at home and the already rather battered trust in political leadership. And it also partly explains the rise of more radical parties.

What follows from this? Firstly, and this may come as a surprise, the shrinking of the German comfort zone could from another angle not only be seen as sign of instability and weakness, but as an opportunity. From psychology we know: Those who leave their comfort zone or are forced to leave increase their own scope of experience and action and increase their resilience and flexibility in dealing with challenges and threats. In such an environment policy change is possible and it must come. Germany is a strong country with sufficient means to achieve a fresh start for the economy, for the German infrastructure and a recovery of society.



Expert article • 3692

What we do need is inspiring confidence in Germanys strength, a clear and positive political and economic leadership on the one hand underpinned by concrete and immediately visible policies on the other hand. Less ivory tower, less back and forth, less moralizing, more cut clear results. If the coming government refocus on the hard-working taxpayers, families, the German Mittelstand and farmers, the military and civil defence, and not unnecessarily hinder their lives with regulations and prohibitions, but support them appreciatively again, this refreshing and somewhat conservative turn could indeed herald a new, modern, more self-reliant and positive era for Germany. Not only in words but in deeds.

Disclaimer: The views expressed in this article are those of the author and do not necessarily reflect the opinions or positions of HOSCHKE & CONSORTEN Public Relations GmbH.



Tim-Åke Pentz

Political Scientist, Senior PR-Consultant HOSCHKE & CONSORTEN Public Relations GmbH Germany



Germany at a crossroads

Expert article • 3693

n Wednesday, 6 November 2024, Europeans woke up to the news that Donald Trump had won the presidential election in the United States. Later the same day, Germany's government coalition collapsed, as Federal Chancellor Olaf Scholz decided to sack Finance Minister Christian Lindner over insuperable differences in fiscal, economic and social policy, leading to the exit of Lindner's Liberal Democratic Party from the government and leaving Chancellor Scholz without a majority in the parliament. From a European security perspective a dramatic day, with two of Ukraine's largest military supporters embroiled in domestic political uncertainty.

Government collapse in Germany is rare. The last time a government coalition did not make it until the end of its legislature period was nearly 20 years ago, in 2005, as Scholz' social democratic predecessor Gerhard Schröder miscalculated the risks of triggering snap elections and lost, resulting in Angela Merkel's 16-year-reign as Chancellor. But the currently anticipated change in power, in all likelihood back to the Christian Democratic Union, can be an opportunity to redefine Germany's role in European security in the post-Merkel era.

The coalition under Chancellor Scholz had been plagued by infighting over incompatible policy goals and lack of flexibility to compromise from the start, which affected the recalibration of Germany's new political equilibrium after Merkel's exit from the scene. The conflicting views of the coalition parties often manifested themselves also in foreign and security policy as conflicting and confusing statements from the Chancellery, the Foreign Minister and the Defence Minister. The lack of unity on crucial topics such as support for Ukraine or implementation of Germany's own defence policy transformation, the so-called Zeitenwende that Chancellor Scholz proclaimed in a speech days after Russia's full-scale invasion of Ukraine in February 2022, contributed to uncertainty about the right course of action among German voters and thereby paved the way for political parties from the fringes to challenge official policies. Consequently, in the state-level elections in three eastern German states Thuringia, Brandenburg, and Saxony, the far-right AfD and a new populist party BSW coming in second and third – or first, in the case of Thuringia. The BSW made its critical stance towards Germany's support for Ukraine a major election topic and succeeded. On the federal level, the AfD is currently polling second after the Christian Democrats, having surpassed the Social Democrats. The coalition-building promises to become a difficult exercise.

Angela Merkel left a vacuum in Germany's political leadership that the Scholz government was unable to fill. Scholz' promise to continue a Merkelian line failed to bring stability as Merkel's own policies became subject to new scrutiny, given the state she had left Germany in: dependent on Russian energy for the competitiveness of its economy, the armed forces "lacking everything" according to the Parliamentary Commissioner for the Armed Forces, and both digital and physical infrastructure in a dire state. Germany needed a new direction, and the Scholz government failed to give it.

The incoming government has a lot of damage control efforts to make after Chancellor Scholz' failure to swiftly implement the Zeitenwende and his consistently hesitant approach to supporting Ukraine militarily, costing Ukraine time and lives at many crucial stages of the war. Germany's leadership in Europe has been based on its economic power, and the Russian full-scale war of aggression against Ukraine has made clear that Germany is not ready to take on a leadership role in European security. This was painfully reflected in Polish Prime Minister Donald Tusk's recent decision to consult with France, the United Kingdom, the Nordic and Baltic countries, but not with Germany, after the US elections.

The near future will be defined by a dramatically deteriorated security environment in Europe. Ukraine's fate, and with it also Europe's fate, is at stake. With Trump back in the White House, it will be up to the Europeans to rise to the occasion. Supporting Ukraine and standing up to Russia potentially without American leadership is an unprecedented task for European countries. Germany's contribution to the effort is crucial, but the new government will be confronted with the reality that Germany might have to follow the lead of others instead of aspiring to take on a leadership role itself. With war on the continent, military capability is equally important for leading Europe as economic power. The German voters need to be convinced first, which the Scholz government failed to do. It is an uphill battle and will take both political courage and a strong moral compass to accomplish.

Minna Ålander

Research Fellow Finnish Institute of International Affairs Finland

Non-resident Fellow CEPA Washington D.C., USA



MICHAEL A. HANSEN

The enduring influence of the farright Alternative for Germany (AfD)

Expert article • 3694

t the conclusion of *Political Entrepreneurship in the Age* of *Dealignment: The Populist Far-Right Alternative for Germany*, my co-author Jonathan Olsen and I reflected on the potential future of the Alternative for Germany (AfD). While the political landscape is ever-changing, the AfD remains a significant force in German politics. Recent electoral successes highlight the party's firm foothold, largely due to its ability to capitalize on political dealignment and leverage crises, positioning itself as a far-right populist alternative.

By consistently exploiting crises, the AfD has solidified its base, particularly in Eastern Germany, and expanded its influence despite controversy surrounding its platform and rhetoric. Whether reacting to the European debt crisis, the refugee crisis, or the COVID-19 pandemic, the party has positioned itself as the voice of those disillusioned with government action. This adaptability has enabled it to align its populist rhetoric with current events where mainstream parties have failed to engage with public concerns, sustaining its momentum in a shifting political landscape.

The AfD's recent electoral performance, particularly in state elections, underscores its growing influence, especially in former East Germany. In Thuringia, the party became the largest political force, securing 23.4% of the vote and 32 out of 88 seats in the state parliament. This unprecedented achievement marks the first time since World War II that a far-right party has emerged as the largest in any German state parliament, reflecting its capacity to tap into local grievances, especially in economically struggling regions. Similarly, in Brandenburg, the AfD came in second with 23.5% of the vote and 30 out of 88 seats, trailing the Social Democratic Party (SPD) by less than 3% of the vote. In Saxony, the AfD garnered 27.5% of the vote, winning 38 out of 120 seats, closely following the CDU, which obtained 32.1%. These results demonstrate the AfD's continued relevance and growing strength in the region.

The broader trend is clear: the AfD has positioned itself as the true opposition to the political establishment in Eastern Germany. Its populist message, centered on anti-immigration, opposition to European integration, and rejection of progressive social policies, resonates with voters who feel marginalized by mainstream parties. Notably, its appeal extends beyond rural or economically distressed regions, gaining traction in some urban settings, further signaling its broadening influence.

Looking ahead, the AfD's future hinges on its ability to maintain voter support while balancing its increasingly radical ideology with broader electoral appeal. Although the party has successfully tapped into societal anxieties about immigration, national identity, and dissatisfaction with the political establishment, it faces the challenge of retaining its base. The party's radical positions on immigration and the European Union resonate with core supporters but risk alienating more moderate voters. Further associations with extreme-right groups and endorsement of conspiracy theories could also deter potential voters and risk triggering a constitutional ban under the Basic Law, which prohibits extremist political parties. Additionally, mainstream parties may adopt some of the AfD's key issues, such as stricter immigration policy, to reclaim voters. This strategy of platform co-optation could reduce the AfD's appeal, especially if voters perceive established parties as better positioned to govern. Traditionally, major parties have sought to marginalize far-right movements by isolating them politically, but co-opting portions of their agenda may prove a more pragmatic approach to diminishing the AfD's political influence.

The AfD's reliance on crises for electoral success also presents risks. While the party has thrived during periods of economic, social, and political turmoil, it is uncertain how it would perform in a more stable environment where dissatisfaction with the establishment subsides. If Germany experiences relative calm, the AfD may struggle to remain relevant. The party's controversial positions on international issues, such as skepticism toward Germany's support for Ukraine or its stance on climate change, could also become liabilities as global dynamics evolve.

Nevertheless, the AfD has firmly established itself in German politics, particularly in Eastern Germany. Whether the new populist Bündnis Sahra Wagenknecht (BSW) or mainstream political parties can attract AfD voters in the 2025 German Federal eEection remains uncertain. The most likely outcome is that the AfD will retain a core group of voters large enough to ensure its parliamentary presence but too small to secure significant governing opportunities.



Michael A. Hansen

Associate Professor of Political Science University of Turku Finland



ALEXANDRA M. FRIEDE

What the German public thinks and does

Expert article • 3695

ermany talks about war and its consequences since Russia's 2022 invasion of Ukraine. Besides Germany's political, financial, military, and humanitarian support for Ukraine, investments in the Bundeswehr make the headlines – and are talked about in the Bundestag, in TV shows, and at demonstrations. What the German public thinks and does is a contested issue. Germany's defence minister keeps repeating that Germany must be ready for war by the end of the decade. This involves the armed forces, businesses and the wider population.

But public opinion is far from united. Not long after Russia's full-scale invasion of Ukraine, many observers criticised the actions taken by the German government (and more explicitly the German chancellor) to support Ukraine on the battlefield and equip the Bundeswehr as "too little, too late". At the same time, populist parties in Germany call for immediate peace negotiations, "back to normal" with Russia, less NATO and less EU. In recent elections in Brandenburg, Thuringia, and Saxony, the Alternative for Germany (AfD) and Sahra Wagenknecht Alliance (BSW) made substantial gains. References to the public will, as expressed in opinion polls, protests, election results or personal conversations, are used by policy actors from all sides to back one's stance. A more critical perspective is needed.

This paper asks how secure urban populations feel, what they are worried about, and how they prepare for crises. To answer these questions, I draw on public opinion data from a recently conducted survey among inhabitants of German cities (Hamburg, Berlin, Munich), Helsinki and Riga. The survey has been funded by the Council of the Baltic Sea States (CBSS) as part of the two-year project "Prepared Together: Stronger Together". Bringing together researchers from Latvia, Finland, and Germany, the project's aim is to facilitate the exchange of best practices in the Baltic Sea region and promote better preparedness for a changing security environment.

The survey results indicate that urban populations seek more guidance from public authorities. Even though most people living in Riga, Helsinki, and Germany's largest cities feel secure, they want to be better informed about what to do if a crisis hits. Compared with the data from Riga and Germany's cities, inhabitants of Helsinki feel the most secure – be it in their immediate neighbourhood (91%), city (84%), or country (92%). The impact of climate change worries respondents from Helsinki the most; nearly half of respondents see it as a major threat.

When it comes to Germany, three observations stand out. First, urban populations share a pessimistic outlook; 59% expect a major disaster to happen within the next ten years. Respondents from Riga (31%) and Helsinki (39%) answer more cautiously. Second, domestic issues take precedence. Organised crime worries respondents from Hamburg, Berlin, and Munich the most; 56% rate it as a major threat. Despite an increased coverage of military issues in the media, only 33% fear the outbreak of war. In Helsinki, the percentage is even lower (21%). The data from Riga differs; 56% are concerned about a potential military attack. A study by the Bundeswehr Centre of Military History and Social Sciences (ZMSBw) confirms that the German population is mainly worried about the impact Russia's war against Ukraine has on their daily lives¹. According to the ZMSBw survey, 75% of the German population feels threatened by rising prices. Concerns about war in Europe or nuclear escalation are less salient. Third, drawing on data from our CBSS funded survey, the self-declared level of preparedness is relatively high in the German sample. Roughly half of respondents has essential items and supplies at home to get through a crisis: 43% have a battery-powered radio, 60% have food, water, and medicine for a week or longer, and 53% have cash reserves for the same period of time. Yet, half of those surveyed in Germany do not feel ready for a crisis. In Riga, on the other hand, 64% report to have the necessary knowledge and skills to manage a disturbing situation.

Some limitations should be kept in mind. The data presented here is only a snapshot. Public opinion can change any minute. It responds to events, but also to policy decisions and media coverage. Differences *within* countries warrant closer scrutiny. Internal dividing lines in public opinion matter, for instance related to sociodemographic factors, rural and urban areas, or, more specifically, East and West Germany.

Alexandra M. Friede

Researcher Helmut Schmidt University Germany

alexandra.friede@hsu-hh.de

Graf, T. (2024). Was bleibt von der Zeitenwende in den Köpfen? Sicherheits- und verteidigungspolitisches Meinungsbild in der Bundesrepublik Deutschland 2023. ZMSBw.



1

TUOMAS ISO-MARKKU

CDU/CSU's crucial role in a changing party system

Expert article • 3696

ermany's three-party "traffic light" government of the Social Democratic Party (SPD), the Free Democratic Party (FDP) and the Greens crumbled on 6 November 2024. As the country heads towards early elections, scheduled for February 2025, the centre-right alliance of the Christian Democratic Union (CDU) and its sister party, the Christian Social Union in Bavaria (CSU), leads the polls by a wide margin and seems well placed to lead the next government. Even if recent political volatility in Germany suggests that no election outcome should be taken for granted beforehand, it is safe to say that the CDU/CSU is likely to have a crucial role in shaping Germany's future, as it is difficult to imagine any government without its involvement. But even beyond simple coalition arithmetic, the way the CDU/CSU positions itself can prove consequential for the political dynamics in Germany.

Like many European countries, Germany has recently witnessed the emergence of an increasingly unpredictable and fragmented political landscape. While this transformation began already in the 1980s, it has gathered pace since 2013 with the rise of the far-right Alternative for Germany (AfD) and, most recently, the establishment of the "left-conservative" Sahra Wagenknecht Alliance (BSW). The latter enjoyed notable electoral success in the 2024 European Parliament elections as well as in three state elections in September 2024. Both the AfD and the BSW have been particularly strong in the eastern parts of Germany, where the electoral landscape has always been different from the rest of the country. However, the electoral potential of the AfD and the BSW is by no means limited to eastern Germany only – and is already shaping politics at the federal level as well.

The changes in Germany's political landscape challenge above all its traditional powerhouses, the CDU/CSU and the SPD, which have long dominated German politics and alternately led the federal government. In the fragmenting party system, both have had to think hard about their own profile – and have also been forced to enter new kinds of government coalitions and compromises. This trend was exemplified by the traffic light coalition, which proved highly dysfunctional. After the strenuous years in government, the SPD now polls at 15%. By contrast, the CDU/CSU's position seems more stable. However, it too has struggled to come to terms with the new political realities, which test both its unity and its values.

As a "big-tent coalition" that brings together Christian-social, liberal and conservative forces, the CSU/CSU has historically acted as a stabilising factor in German politics, successfully containing far-right forces. However, the ability of the AfD to consolidate its place in the German political system defies the CDU/CSU's claim to keep the political fringes in check. Even more importantly, it has led to significant tensions within the CDU/ CSU, with the liberal and conservative parts of the party at odds over how to respond to the AfD's rise and the broader changes in German politics. In essence, the more conservative forces within the CDU/CSU posit that it was the CDU/CSU itself that first allowed the AfD to grow, moving too far to the political centre and sacrificing the core of its Christianconservative profile, thereby freeing up political space for the AfD to occupy. Consequently, the conservatives demand the CDU/CSU to adopt a "clearer" stance especially regarding migration to lure back disgruntled former supporters. The liberal forces within the CDU/CSU, on the other hand, contend that elections are won by opening the party to new voter groups that can be found around the political centre. These parts of the CDU/CSU would prefer to respond to the AfD by challenging its narratives and positions as well as by cooperating with the other centrist political forces to keep the AfD out of positions of power.

The CDU/CSU's internal tensions started to show during the latter part of Angela Merkel's chancellorship – and have been particularly visible since Merkel withdrew from her position as CDU leader in 2018. Since then, the CDU has seen several intense and divisive leadership battles. After the short leadership terms of the centrist Annegret Kramp-Karrenbauer and the liberal Armin Laschet, the party elected the conservative Friedrich Merz as its chair. Merz will also be the CDU/CSU's chancellor candidate in the 2025 electoral race.

Initially striving to create unity, Merz has recently steered the CDU/ CSU notably to the right, especially regarding immigration, which remains a central and highly contested issue in Germany. Moreover, Merz – together with CSU leader Markus Söder – has chosen the Greens as the CDU/CSU's primary adversary. While this course is welcomed by the more conservative parts of the party, including many in eastern German states, it is not to the liking of the more liberal party members. Moreover, it could prove a challenge if the CDU/CSU is indeed able to win the 2025 election. In that case, it will likely need to form a government with the centre-left SPD or even the Greens.

Tuomas Iso-Markku

Senior Research Fellow Finnish Institute of International Affairs (FIIA) Finland

tuomas.iso-markku@fiia.fi



16

SEBASTIAN JUNGKUNZ

The nature and origins of political extremism

Expert article • 3697

olitical extremism can be broadly defined as ideologies, attitudes, behaviors, and institutions that reject the principles of democracy and the rule of law. It operates against the democratic constitutional state, seeking to replace democratic governance with authoritarian systems. Extremist ideologies often reject fundamental democratic values such as equality, individual freedom, and mutual tolerance. Right-wing extremism is characterized by a hierarchical view of human worth, which typically promotes nativism, nationalism, and racial superiority. In contrast, left-wing extremism promotes the idea of total equality, often at the expense of individual freedom, aiming for authoritarian socialism.

Despite their ideological differences, left- and right-wing extremism share certain structural characteristics. Both seek to monopolize knowledge, claim absolute truth, and reject democratic pluralism. They advocate for a holistic and deterministic view of history, which typically results in a dualistic, "us versus them" approach to society. Both ideologies oppose institutions like the EU and the United States, and target globalization as a common enemy. Understanding these commonalities is crucial for addressing the broader spectrum of political extremism.

Prevalence of left- and right-wing extremist attitudes in Germany

The prevalence of left- and right-wing extremist attitudes has remained at similar levels over the years, with distinct regional variations between east and west Germany. Between 1994 and 2022, support for left-wing extremism remained relatively low, fluctuating between 1% and 3% in the West, and 3% to 7% in the East. Right-wing extremist attitudes followed a similar pattern, with 1% to 3% in west Germany and 2% to 6% in the East. The legacy of the former East Germany (GDR) plays a key role in the higher prevalence of extremism in the East, where political and economic hardships have left lingering dissatisfaction with democratic structures.

While overt political extremism is not widespread in Germany today, the existence of a latent structural potential for extremism remains concerning. This refers to underlying extremist tendencies within society that may not be immediately visible through electoral results but could be reflected in public opinion, social discontent, and radical populist narratives.

Factors causing political extremism

Several key factors contribute to the development of political extremism:

- Anomia: a sense of disconnection from society, where individuals feel overwhelmed by rapid changes and being unable to keep up
- Authoritarian personality traits: a preference for order, hierarchy, and submission to authority
- Economic and social deprivation: financial hardship, status loss, pessimistic expectations about the future, and relative deprivation
- Local context: the prevalence of extremist ideas in a person's immediate social or geographical context

Extremist attitudes are highly stable once formed, making early intervention critical. Since these views are unlikely to change without significant long-term efforts, it is essential to prevent the spread of extremist ideologies before they take root.

Implications

To effectively mitigate political extremism, practitioners must understand the long-term structural potential of extremist ideas and work towards addressing the underlying causes. Key strategies for practitioners include:

- 1. Economic and political security: reducing financial insecurity is important, but equally crucial is rebuilding political trust. Citizens must feel that their concerns are acknowledged and acted upon through responsive, people-oriented policies.
- 2. Strengthening democratic norms: political actors must uphold not only legal democratic norms but also "soft guardrails" like mutual toleration and institutional restraint. Erosion of these norms, as seen in countries like Hungary and Poland, leads to authoritarianism.
- 3. Community-level interventions: extremist ideas often take root locally. Engaging communities through dialogue, increasing political participation, and offering platforms to voice concerns constructively can counter this trend.
- 4. Monitoring extremism: vigilant monitoring of public sentiment and socio-political developments will allow policymakers to address potential threats early, preventing extremist ideas from spreading.

Political extremism in Germany remains a latent but persistent threat. While the overall levels of support for extremist ideologies are currently low, the structural potential for radicalism and extremism exists, particularly in east Germany. To address this challenge, practitioners must focus on both short-term interventions and long-term strategies aimed at fostering political trust, improving economic security, and strengthening democratic institutions. By doing so, it may be possible to mitigate the factors that fuel political extremism and safeguard democracy from further polarization and radicalization.

Sebastian Jungkunz

Post-Doctoral Researcher University of Bonn Germany



LEONI HEYN & FELIX NEUMANN

Prince and Tsar: An antidemocratic German-Russian alliance

Expert article • 3698

n December 7, 2022, a so-called "Reichsbürger" Prince gained international spotlight for causing the largest police operation in the modern history of the Federal Republic of Germany (FRG). Henry XIII along with 25 members of his alleged terrorist organisation "Patriotic Union" was arrested for plotting to violently overthrow the German government; a plan built on an intended alliance with Vladimir Putin. The group around Prince Reuss not only had extensive contacts with Russia¹, the internal plans also outline that after a successful coup, a military government was to be implemented that would subsequently conclude a treaty with the Russian Federation². Even though the "Patriotic Union" cannot fully represent the highly heterogenous Reichsbürger scene, the rationale behind this intended anti-western alliance illustrates the ongoing and milieu-wide threat that Reichsbürger pose for democracy.

Kingdoms, weapons and right-wing extremism – who are Reichsbürger?

The Federal Office for the Protection of the Constitution, Germany's domestic intelligence service, defines Reichbürger as individuals or groups who do not recognise the legitimacy of the Federal Republic of Germany and its legal system. Akin to Sovereign Citizens, they perceive themselves as 'citizens of the German Reich'. This self-perception is deeply rooted in conspiracy theories and often functions as primary justification for legitimization of proclaiming proclamation of their own kingdoms, laws or pseudo-feudal systems of governance. A total of 25,000 individuals are attributed to the scene, although this is an extremely heterogeneous group. Nevertheless, the following can be summarised: A general affinity for weapons, with at least 5% having connections to right-wing extremism and 10% exhibiting violence-orientated tendencies³.

The perception of Russia within the Reichsbürger scene

The scene's perception of Russia is predominantly positive. Two conspiratorial elements of the Reichsbürger ideology can explain this stance. On the one hand, parts of the heterogeneous Reichsbürger movement draw from the delegitimisation of the sovereignty of the FRG that Germany is still occupied by US-forces. To end this occupation, help is expected from the Russian Federation.

On the other hand, the partial integration of the QAnon conspiracy theory into Reichsbürger ideology exemplifies a clear friend-foe dichotomy. For example, the Patriotic Union believed that a diabolical 'deep state' ruled over Germany. However, liberation was expected as

- ZEIT ONLINE: Prinz Reuß soll Kontakt zu russischen Nachtwölfen gehabt haben, www.zeit.de/gesellschaft/zeitgeschehen/2024-04/reichsbuerger-prinz-reuss -kontakt-russland (15.07.2024).
- 2 Rathje, Jan / Meyer, Claire-Friederike (2024): Durch die Krise ins Reich Postpand emische Entwicklungen von "Reichsbürgern" und Souveränist:innen in Deutschland, S. 10.
- 3 Bundesministerium des Inneren und für Heimat: Verfassungsschutzbericht 2023, S. 132ff.

imminent through a joint attack of a 'galactic' alliance led by Donald Trump and Vladimir Putin. The group around Henry XIII Prince Reuss was actively seeking to "cooperate" with this alliance.

From what we know so far, Prince Reuss himself is said to have flown to Bratislava with former Bundeswehr officer Rüdiger v. P. to meet Russian contacts. The accused Johanna F.-J., who was intended for the office of Family Minister, is also said to have met with the former Consul General in Frankfurt am Main, Ivan Khotulev, in November 2022⁴. Other examples are the accused Christian W., Udo M. and Frank R., who were mailing with the Russian Consulate General in Leipzig to arrange a meeting with a high-ranking diplomat⁵.

Bots, disinformation and social media: drivers of pro-Russian attitudes

The positive image of Russia inside the Reichsbürger community is equally utilised and fed by the Russian propaganda strategy. The latest since the rebranding of 'Russia Today' (RT) media centre as a weapon of political warfare in 2009, the fringes of Western societies have been the target of disinformation campaigns. The anti-democratic and anti-western attitudes of the Reichsbürger render them particularly susceptible to Russian propaganda. The head of the North Rhine-Westphalia State Office for the Protection of the Constitution confirms that influencers within the scene, who disseminate pro-Russian disinformation on social media, are often supported by Russian bots. The efficacy of this strategy is exemplified by a chat group of a self-publishing Reichsbürger author on Telegram. Messages from channels such as "Russländer & Friends" (Russians & Friends) are frequently forwarded to the group and are reacted to with at least positive emojis. A post on the US election campaign shared by "Putin's fan club" was followed by the comment "hope to see Putin by Trump's side after his re-election".

Short and long-term threat analysis

When discussing the landscape of German extremism, Reichsbürger are often overlooked for their "rather harmless conspiratorial fantasies". Yet, the plot of the Patriotic Union highlights why this stance is not only dangerous, but how Reichsbürger have the potential to transform into a hybrid threat undermining German democracy. First, the plot illustrates the strong affinity to weapons, with access to at least 300 firearms. Second, the often belittled adherence to conspiracy theories makes the group susceptible to any narrative reinforcing the clear conspiratorial dichotomy of anti-western friends and anti-elitist enemies. Third, if paired

Tagesschau (2024): Die Nähe der "Reichsbürger" zu Russland, www.tagesschau. de/investigativ/mdr/reichsbuerger-razzien-russland-konsulat-leipzig-100.html



8

5

⁴ MDR (09.02. 2024): Reichsbürger-Gruppe Reuß: Weitere Russland-Kontakte www. mdr.de/nachrichten/deutschland/politik/reuss-russland-kontakte-reichsbuerger -100.html

Expert article • 3698

with an imminent sense of threat, all factors may unfold a potential for mobilization: Patriotic Union believed that a defense against the "evil deep state" was essential for survival.

Consequently, the persistent reinforcement of a clear friend-foe dichotomy by Russian disinformation may not only result in a long-term transformation of Reichsbürger into an anti-western hybrid threat. Strategic fearmongering may additionally trigger existential threat, increasing the short-term potential for further attacks.

Leoni Heyn

Researcher & PhD Candidate Institute for Security Policy, Kiel University GmbH (ISPK) Germany

lheyn@ispk.uni-kiel.de

Felix Neumann

Policy Advisor Extremism and Counter-Terrorism Konrad-Adenauer-Stiftung Germany

felix.neumann@kas.de



ARVID JURJAKS

Uncertain snap election as new parties rise

Expert article • 3699

he days are gone when German politics was dominated by two main forces: the Christian Democratic Union (CDU/CSU) and the Social Democrats (SPD). In the 1970s, they controlled over 90 percent of the vote. But their dominance has since eroded, and their grip on the electorate has weakened.

Fifty years later, Germany's party system, once one of Europe's most stable, has transformed dramatically. And as the country heads for a snap election, uncertainty is high—not only about the outcome but also whether a majority can be formed to govern. Many parties want a slice of the pie, and there are more of them than ever before.

Back in 1972, when Germany's two *Volksparteien* were at their peak, voters had just seven parties to choose from. Three made it to the Bundestag. In the last election 2021, 43 parties competed, and six crossed the five percent threshold needed for seats in the parliament. The youngest in this group, the right-wing populist Alternative für Deutschland (AfD), secured its place for the second time. Eleven years after its founding, AfD has established itself as part of the political map, despite its increasingly radical positions on immigration, ethnicity, and national identity, which have made it impossible for other parties to work with so far.

In several regions, local AfD organizations are classified as "proven right-wing extremists" by Germany's domestic intelligence service, while on the federal level, the party is under investigation as suspected extremist.

Despite this, AfD has had significant impact on both policy and political culture in Germany. CDU and its Bavarian sister party, CSU, are attempting to lure back right-wing voters with stricter immigration policies and a strengthened focus on identity politics. The CDU's new policy program, adopted in 2024, highlights the need for a German *Leitkultur*—a guiding culture that emphasizes the nation's language, history, and customs to bolster German identity.

SPD has also taken a harder stance on immigration. In a muchdiscussed issue of Der Spiegel in the fall of 2023, Chancellor Olaf Scholz was featured on the cover with the headline, "It's time to finally start largescale deportations".

While AfD may be the most prominent newcomer in terms of voter support and influence on discourse, it's far from the only one.

After much speculation, Germany saw the emergence of a new party in January 2024: *Bündnis Sahra Wagenknecht* (BSW), named after its founder and leader, Sahra Wagenknecht. BSW quickly became a key force, competing with AfD to dominate the debate leading into critical state elections in Saxony, Thuringia, and Brandenburg this fall.

Wagenknecht, a former leader of the Left Party (*Die Linke*) and one of Germany's most charismatic politicians, seized on an issue resonating with many Germans: peace in Ukraine. Due to Germany's unique relationship with Russia, many voters are sceptical to the government's policy on Ukraine. Additionally, a considerable number of Germans are genuinely concerned about being drawn into the conflict. Wagenknecht's program, which combines calls to halt German arms shipments to Ukraine with anti-imperialist attitude towards the West and the U.S., has struck a nerve.

Her economic platform draws on classic left-wing redistribution policies, alongside a protectionist and conservative approach to industry and labor. This is also reflected in her stricter immigration policies.

Her message has particularly resonated in the eastern parts of the country, where skepticism toward the West German elite that has dominated the country's leadership, has so far only been expressed through support for AfD.

Wagenknecht's appeal was evident in the September 2024 state elections, where BSW received 11.8 percent in Saxony, 15.8 percent in Thuringia, and 13.48 percent in Brandenburg.

Since none of the major parties are willing to work with AfD—which made significant gains and became the largest party in Thuringia—they have turned to BSW to form a government. Wagenknecht has leveraged this position to push for a shift in Germany's Ukraine policy. In coalition talks at the regional level, she also damenaded halting the deployment of American intermediate-range missiles on German soil. Both are federal matters. Instead, regional party organizations now find themselves not only negotiating these topics to appease BSW, but also running the risk of getting in conflict with party policy laid out in Berlin. As of this writing, the outcome of these negotiations is still unclear.

In other states, established parties have also joined forces with newer, regional parties. In Bavaria, the *Freie Wähler* have governed with the CSU since 2018, with seats in Saxony and Rhineland-Palatinate's parliaments as well. In Bremen, the right-wing populist *Bürger in Wut* won 9.4 percent of the vote in 2023.

The fragmented party landscape was also evident in the European Parliament elections, where a record fourteen German parties secured seats.

Research points clearly to a trend: Germany is moving toward a so called highly fragmented party system, where numerous parties in parliament hold significant seats. Countries like Finland, Latvia, Poland, and Sweden are already operating in such systems.

This does not make these countries "ungovernable"—a term often used in Germany as new parties gain ground. But for Germany, this is a new and unfamiliar situation as the country approaches a snap election for the fourth time in history.



Arvid Jurjaks

Freelance journalist Berlin Germany

arvid@arvidjurjaks.se



KIMMO ELO

German foreign policy between a rock and a hard place

Expert article • 3700

ince unification, Germany's foreign and security policy has been traditionally characterized by two key elements. The first is Germany's Western integration, grounded in transatlantic relations, particularly German-U.S. ties, and a steadfast commitment to European integration. This foundation rests on shared values such as freedom, democracy, the rule of law, and a market economy. The second is *Ostpolitik*, or Eastern policy, initiated during Willy Brandt's chancellorship in the early 1970s. Conceptualized in the famous slogan *Wandel durch Annäherung* (change through rapprochement), this policy recognized the Soviet Union as a central actor in European security and saw rapprochement with it as a crucial step toward democratic change within the Soviet sphere.

After the Cold War, Germany—along with a majority of EU member states—sought to leverage trade and economic relations to promote political reforms in Russia, a strategy now known as *Wandel durch Handel* (change through trade). Despite a sharp downturn in German-Russian relations beginning in the mid-2000s and continuing through Russia's 2014 annexation of Crimea, Germany and its European partners continued to see economic engagement as a means of pushing for political reform. However, Russia's full-scale invasion of Ukraine on February 24, 2022, marked an abrupt end to this strategy. Chancellor Olaf Scholz aptly described the shift as a *Zeitenwende* (turning point) in his address to the Bundestag on February 27, 2022.

As a geoeconomic power, Germany has sought to maintain stable political relations with countries critical to its economic well-being. Yet Russia's war on Ukraine has not only removed it from the role of Germany's energy supplier but has also placed Germany in a challenging position between the U.S. and China. As U.S.-China political and economic tensions have intensified in recent years and are likely to continue escalating, Germany's diplomatic balance has become increasingly delicate. Donald Trump's second presidency will likely put more pressure on Germany's overarching strategy. Meanwhile, strategic cooperation between Russia and China complicates Germany's efforts to position itself on the global stage.

Chancellor Scholz has emphasized economic considerations over political ones, resulting in an ongoing intra-governmental conflict with Foreign Minister Annalena Baerbock, who has openly criticized Scholz's China policy and advocated for stronger commitments to democratic values and the rule of law—even in relations with authoritarian regimes like China. However, the global triangle between Germany, China and the U.S. has gained in importance for Germany, yet is more challenging to master. Three forward-looking factors are especially noteworthy. First, in light of Russia's aggression, Europe's—and Germany's—security and defense policies are likely to remain dependent on NATO and U.S. support, thus reinforcing transatlantic ties. Second, China will continue to be central to Germany's economic prosperity. And third, U.S.-China relations will likely remain strained, if not openly hostile, for the foreseeable future.

In this context, Germany's most viable option is to maintain constructive relations with both Washington and Beijing. This approach could enable Germany to navigate a delicate balance within the Washington-Berlin-Paris-Beijing axis, which is increasingly essential for European security. To date, the U.S. has not actively opposed Germany's cooperative stance toward China, suggesting a degree of tacit support. However, if the U.S. were to change its position and push for stronger alignment from Germany and the EU with its own China policy, Germany's strategic flexibility could be severely restricted. In response, China might strengthen its ties with Russia. Given that Germany's China policy has already drawn criticism from some EU member states, a Chinese pivot toward Russia could not only diminish Germany's influence within the EU but also risk allowing China to drive a political and economic wedge between EU countries, undermining the EU's global role.

Undoubtedly, the future of both the EU and Germany on the world stage cannot rely on dreams of the grandeur of the past alone. Instead, the *Zeitenwende* articulated by Chancellor Scholz should serve as a foundation for a robust renewal of European integration. This renewal should combine Germany's economic strength with France's political vision to bolster the Western alliance, presenting it as a compelling partner for the Global South. At the same time, it would equip the EU to address rising transatlantic and Pacific tensions, especially in the context of the second Trump presidency. Such a reform would also prepare the EU to hold its ground in an increasingly turbulent world, rather than being caught between a rock and a hard place.



Kimmo Elo

Adjunct Professor, Senior Lecturer Department of Geographical and Historical Studies, University of Eastern Finland Finland

kimmo.elo@uef.fi



HANS-GEORG EHRHART

Germany and Europe after the Ukraine War

Expert article • 3701

ince war has a tendency to escalate into extremes, it must be politically contained with the aim of ending it as soon as possible and preventing it in the future. This is particularly relevant when, as in the case of the war in Ukraine, nuclear powers are directly and indirectly involved. Therefore, it makes sense to hypothesize the war's possible outcomes and risks. I assume three possible

scenarios¹: 1. Russia wins the war. 2. Ukraine wins the war. 3. Nobody wins and the conflict then remains in an unstable stalemate. The first scenario is unlikely but entails a high risk for Germany and Europe. The second scenario is less unlikely but is also associated with a high risk due to the assumed use of tactical nuclear weapons. The third scenario is more likely and is associated with a comparatively lower risk. Taking each of these scenarios into account, we can reach the following conclusions:

First, Germany has various security policy options depending on the outcome of the war in Ukraine: 1. The completion of a fully integrated EU defense, economic and financial union. 2. The assumption of a quasi-hegemonic leadership role as the primary American mainland sword in Europe. 3. The formation of a European Caucus within NATO and close security policy cooperation between NATO and the EU. It wouldn't actually take the war in Ukraine to implement these options in one form or another. However, so far, the political will and the corresponding framework conditions have been lacking. The war in Ukraine could produce both.

Second, the outcome of the war in Ukraine will have a decisive impact on German and European security The possibility of a Russian victory would entail high security risks for Germany and Europe and would have far-reaching consequences for Ukraine and the stability of the continent. It should, therefore, be prevented. A Ukrainian victory may be desirable, but it is associated with a very high risk of nuclear escalation, which could lead to the destruction of Ukraine, or even Europe. A stalemate would probably result in a new "Cold War", which at best could be transformed into a "Cold Peace" in the form of non-violent competition between systems. At worst, it would mean permanent tensions and the threat of war in the sense of a permanent struggle for the right order.

Third, there are three common truths: One is that Russia remains a very relevant Eastern European neighbor for Germany and the EU in terms of geography and potential. The other common truth is that the USA will remain an indispensable player in European security for the foreseeable future. Germany and Europe thus have an interest in appropriate US involvement in and for Europe. The third common truth is that China plays a significant role in this conflict. In the event of a Russian victory China could feel encouraged to use force to achieve its goals concerning Taiwan. A Russian defeat would compromise Chinese ambitions and allow the US to focus on Beijing. That is why China has no interest in a defeated Russia. A stalemate in the Ukraine war would tie the US more closely to Europe and enable Beijing to play the role of mediator, whose influence in Europe and Russia would increase.

For a more detailed analysis of the scenarios see: Hans-Georg Ehrhart. Germany and Europe after the Ukraine war in 2025: Three scenarios, in: Putin's war in Ukraine. Edit. By Vladimir Sazonov and Andres Saumets. Estonian Journal of Military Studies, 23/2023, pp. 199-211. Fourth, regardless of the scenario, Berlin will have to spend more on its own and EU defense. The more the US involvement in Europe decreases, the greater the German and European defense burden will be. Moreover, Germany's share of the support costs for Ukraine is likely to increase. At the same time, Berlin must advance the European integration project and ensure the economic and political stabilization of Eastern Europe. This is expected to lead to increased national budget conflicts in Germany. In order to minimize such conflicts, possibilities for peaceful coexistence with a Russia that remains imperialist must be explored.

Since a victorious peace is unlikely for any of the protagonists and the costs are constantly rising not only for the direct opponents of the war but also for their supporters and the not-inconsiderable number of states that are staying out, Berlin should strive for a settlement along the lines of the third scenario. This combines a territorial compromise acceptable to both opponents with the maintenance of Ukraine's legal position and postpones a final settlement to the future.

Germany should be aware that the bon mot attributed to the first Secretary General of NATO, Lord Hastings Ismay, still applies in a modified form: NATO is there to keep the Russians out, the Americans in and the Germans involved (instead of "down", as in the original quote). It continues to be in Germany's interest to work towards restoring the Harmel formula of 1967, according to which sufficient defense capability and détente can enable security between system opponents. After all, Russia will not disappear from the scene and will one day be interested in co-operation again. Finally, Berlin should be careful not to grow into a hegemonic role. This means investing in European integration more than ever.

Hans-Georg Ehrhart

Senior Fellow Institute for Peace and Security Research of the University of Hamburg Germany



¹

TOBIAS FELLA

Germany and nuclear deterrence under Trump II

Expert article • 3702

ussia's war against Ukraine has marked the return of history, while Donald Trump's election victory has the potential to further impact debates on nuclear deterrence. If Germany is to confront the challenges that come with it, it must become a more measured power.

Caught in the middle

Berlin grapples with mounting concerns about U.S. security commitments, as it enters a third nuclear age, characterized by great power conflict and the increasing impact of conventional capabilities on the nuclear situation. These concerns resonate across Western Europe and are intermingled with rising proliferation risks and pressures to expand extended deterrence guarantees within alliances, especially in Asia. In contrast, nations on NATO's eastern flank, like Poland, perceive stronger ties to the U.S. under Trump and remain more confident in NATO's nuclear umbrella. This creates push and pull factors for Germany that is used to relying on extended U.S. nuclear deterrence, while also working towards disarmament and a more united and autonomous Europe.

Germany and the bomb: From Adenauer to Scholz

German doubts about the reliability of U.S. defense commitments are not new. In the 1950s, Chancellor Konrad Adenauer and Defense Minister Franz Josef Strauss considered developing nuclear weapons due to concerns about a diminishing U.S. military presence in Europe and the rising Soviet threat. They contemplated a "Bonn bomb" and potential collaboration with France, but these plans never materialized. Instead, Germany became part of NATO's nuclear sharing agreement. Strauss later criticized this arrangement, likening it to being a "little puppet allowed to run alongside the military band with his toy trumpet".

Although there have been similar calls and opinions from time to time mostly from the fringes of the political debate, Germany's position remains rooted in international agreements. In the Two Plus Four Treaty Germany renounced the manufacture and possession of nuclear weapons, and as a signatory to the Nuclear Non-Proliferation Treaty (NPT), which it joined in 1975 as a non-nuclear weapon state, these commitments are cornerstones of Germany's foreign policy identity.

However, this time structural forces could lead to a change. Trump's election victory and upcoming return to the Oval Office, combined with the ongoing Russian aggression against Ukraine, has created a new security situation that may compel Germany to reassess its position. Even before the election, key political figures across the spectrum began discussing nuclear deterrence alternatives. These include Friedrich Merz and Wolfgang Schäuble from the CDU/CSU; Sigmar Gabriel from the SPD; Joschka Fischer from the Green Party; and Christian Lindner from the FDP. Despite Chancellor Olaf Scholz reaffirming Germany's long-standing position against seeking its own nuclear weapons, the debate has the potential to resurface again in the coming months.

Not so fast: Navigating nuclear limits

While a German or EU nuclear capability is seen as unrealistic or counterproductive, attention has shifted to existing European nuclear powers. France maintains about 290 warheads and the United Kingdom (UK) has around 225, both modernizing their primarily submarine-based arsenals, with France also employing air-launched cruise missiles for its "final warning" capability.

French President Macron proposed a strategic dialogue in 2020, suggesting France's nuclear deterrence could play a role in European collective security. These proposals have limitations as Paris insists on retaining full control over its arsenal. The French arsenal also lacks certain capabilities present in the U.S. arsenal necessary for extended deterrence or symbolic sharing arrangements, such as gravity bombs. The UK faces similar challenges, with nuclear forces dependent on U.S. technology.

Significant obstacles remain for all discussed options. Legal constraints pose a major challenge, as European non-nuclear states are NPT signatories, prohibiting them from acquiring nuclear weapons. Overcoming technical and economic hurdles requires substantial investments amid political polarization and budgetary constraints. Public opinion is another barrier, though attitudes may be shifting; a mid-2022 poll found that 52% of Germans supported U.S. nuclear weapons in their country, marking the first time in decades that a majority has taken this position.

Conventional deterrence first, second, and third

Against this background, Berlin should prioritize strengthening conventional deterrence. At the same time, Germany - together with the UK, France, and possibly Poland - should carefully initiate a discussion platform on nuclear deterrence. This platform should explore ways to enhance deterrence without unnecessarily creating additional risk.

Germany is entering an era of conventional and nuclear instability marked by the erosion of arms control frameworks and the dawn of a new missile age in Europe— exemplified by the planned deployment of US medium-range missiles on German soil starting in 2026. In response, Germany must integrate deterrence and arms control strategies more effectively than in the past. It can no longer afford to oscillate between extremes -either an almost exclusive focus on deterrence or a simplified approach to disarmament. The situation is too serious for that; balance is needed.



Tobias Fella

Senior Researcher Institute for Peace Research and Security Policy at the University of Hamburg (IFSH) Germany

fella@ifsh.de



JENS SUEDEKUM

Germany's stalled growth amid uncertainty

Expert article • 3703

ermany, Europe's economic powerhouse, is grappling with persistent challenges that threaten its once-robust economy. Despite expectations of a consumption-led recovery bolstered by declining inflation and moderate wage growth, neither consumption nor investment has shown significant improvement recently. The prevailing narrative is one of uncertainty, prompting increased precautionary savings rather than economic activity.

Consumption and investment stagnation

Over the past six to nine months, hopes for a recovery have dimmed as German households remain cautious. Nominal wage growth has rebounded to moderate levels, following dramatic declines in real income during the energy crisis of 2022. However, this uptick has not translated into higher consumption. Instead, households and businesses alike are holding back, apprehensive about what lies ahead.

This hesitancy stems from a climate of uncertainty. Predictions suggest modest improvements in 2025, but they remain far from guaranteed. A potential downturn looms, with ripple effects that could exacerbate the current mood of economic caution.

Germany's labour market, encompassing approximately 46 million workers, has remained relatively stable due to labour hoarding. This phenomenon, where businesses retain employees despite reduced demand, can only sustain for so long. Major firms, particularly in manufacturing and the automotive sectors, have already announced layoffs. If these trends accelerate, the impact on consumer confidence and spending could be severe.

The export engine stalls

Germany's famed export-driven growth, which underpinned its economic success in the 2000s, is faltering. China, once a key destination for German exports, has become an increasingly challenging market due to political complexities. German car manufacturers, for instance, are struggling to compete with Chinese brands that offer competitive prices and appealing quality.

The future of the German automotive industry appears uncertain. Premium brands like Mercedes-Benz and BMW still hold their ground in the luxury segment but face potential challenges from Chinese competitors in the coming years. Volkswagen, however, faces a more immediate existential threat. Its survival depends on developing affordable, highquality vehicles capable of competing globally, particularly in the electric vehicle (EV) market.

Policy uncertainty adds to the woes

Compounding economic challenges is a lack of consistent and reliable policy direction. Recent budget cuts, spurred by a Constitutional Court ruling, have eroded confidence in government initiatives. For instance, the abrupt removal of EV subsidies unsettled the market, creating doubts about the stability of future policies. Germany's fragmented political landscape exacerbates this issue. While there is broad consensus on the need for reforms—including industrial policy shifts, infrastructure investment, and decarbonization efforts—implementation remains elusive. Even ambitious proposals, such as the Federation of German Industries' call for a ≤ 1.4 trillion "Marshall Plan" to transform the economy, face political roadblocks.

Despite these difficulties, Germany retains significant strengths. Its manufacturing sector boasts deep expertise, and advancements in digitalization and artificial intelligence (AI) could offer a much-needed productivity boost. While Germany may lag behind global tech leaders in areas like large language models, there is substantial potential in niche applications of AI and other digital tools.

Self-driving cars, for instance, could represent a new frontier for German innovation, provided the country can overcome its current inertia. However, the government's focus on short-term priorities, such as appeasing pensioners, detracts from long-term investments in transformative technologies.

The road ahead

The previous government failed over internal divisions on economic policy. A snap election is on the way, scheduled for February 2025, and it is for the next government to make substantial and far-reaching decisions. Germany stands at a critical juncture. While the country possesses the knowledge and industrial capacity to adapt to changing global dynamics, its ability to do so is hindered by policy uncertainty, political inertia, and external pressures. The next five years will be decisive for key industries, particularly automotive, as they grapple with the challenge of remaining competitive on the global stage.

If Germany can overcome these obstacles, embrace digitalization, and implement forward-looking fiscal and industrial policies, it may yet regain its footing. However, without decisive action, the nation risks falling behind as others forge ahead, leaving its economic future increasingly precarious.



(c) Schmidt-Dominé

Jens Suedekum

Professor of Economics Heinrich-Heine-University Düsseldorf Germany

Member Scientific Advisory Board of the German Federal Ministry of Economic Affairs Germany

suedekum@hhu.de



VESA VIHRIÄLÄ

A structural slump slows down the German economy

Expert article • 3704

he German economy has been stagnant since 2019, performing worse than the EU or the euro area on average. Per capita GDP was 0.9 % smaller in 2023 than in 2019, while it was 2.1 and 3.3 per cent higher in the euro area and the EU, respectively.

This stagnation represents a remarkable change from the almost 15 years of star performance until 2019. Between 2005 and 2019, the German economy grew faster than any other major developed economy. Per capita GDP growth was 20 %, which is double of that of France or the UK and surpasses substantially also the US rate of 16 %.

The sea change at around 2020 did not stem from the Covid-19 shock that put a heavy pressure on all economies. The German GDP declined substantially less in 2020 than in the aforementioned countries or the euro area on average. The slowing down had in fact started already prior to Covid. This suggests that longer-term structural issues rather than cyclical factors are behind the change.

In terms of labour productivity and labour input, the recent stagnation is due to fewer hours per capita. GDP per hour grew consistently until 2022 to decline only in 2023. The lower labour input reflects a stagnation of the share of employed in the total population at a very high level and a continued decline of hours per employed. Unemployment has remained low.

On the demand side, manufacturing exports were the key driver of growth prior to the recent stagnation, showing up in the exceptionally high current account surplus. Since 2018 export performance has weakened significantly. Several factors have contributed to this. Unfortunately, many of them are likely to be long-lasting if not permanent.

The rise of energy costs since the Russian war of aggression in Ukraine weakened the profitability of energy intensive production, particularly in the chemical industry. While the prices have come down, relative energy costs are and will most likely remain higher than in the past. Therefore, investment decisions are also affected. In particular, the US will be a significantly more profitable place for energy-intensive production than Europe.

Simultaneously the demand for combustion engine cars has weakened while the German car industry has been slow to develop electric vehicles (EV). Given the importance of the car industry in German manufacturing, this has already had a major impact on industrial production. This impact is also unlikely to disappear soon. The Chinese EV production is technologically well-advanced and enjoys a significant cost advantage as well. The industry has already started to respond to the weakened prospects; for example Volkswagen was recently reported to plan shutting down three plants. Also the weakening of Chinese growth has impacted on German exports, for which China has become a major market.

The re-election of Donald Trump will almost certainly lead to higher tariffs on European exports to the US thus weakening the demand for export production directly. The tariffs on Chinese exports on the other hand are likely to put pressure on the Chinese exporters to redirect some of the supply to the European markets. The combined negative impact could be significant on all EU exports and import competing production, and particularly so for the export-oriented German manufacturing. How high and durable the tariffs will be is difficult to foresee, but one cannot trust that the new barriers to trade would disappear soon.

Two supply side factors are also contributing to slow down growth in Germany. Ever since the collapse of the Iron curtain, the integration of the Central European economies – Poland, Hungary, Czech Republic, Slovakia – to the Western economic system has benefitted Germany greatly. German companies could locate significant parts of their supply chain in these near-by, low-cost countries with well-educated labour force. This potential has been largely exhausted, as the cost levels have converged and the weak demographics of these countries is having an increasing impact on their labour supply.

Secondly, labour supply is becoming an increasing constraint for growth in Germany itself. The employment rate has already stabilised at a very high level by European standards. While the average annual working hours per employee are low, hours per total population are around the European average, and can hardly increase substantially. As the share of the working age population in the total population is set to decline fast, even keeping labour input stable would require substantial work-related immigration. Its availability is an open question.

Given this outlook for labour supply, growth will be determined by productivity, not only in the long run but also in the coming few years. German productivity is high by European standards, but the gap vis-à-vis the US has widened since the global financial crisis. This difference stems essentially from the high-tech companies (software, ICT, pharma) which have lifted US productivity rapidly, while Germany and the rest of Europe lack large technology companies.

The outlook depends very much on how fast Germany can transition from production relying on mid-level technologies to high-technology production. The jury is out on that. Like most other European economies, the spearhead of high productivity production, start-up companies, comprise only a small fraction of the German economy. Unlike in the US, the scaling-up of start-ups has been held back by weak supply of risk capital and more fragmented near-by markets. On the other hand, spending on R&D has steadily increased surpassing 3 % of GDP since 2017. This is well above the EU average of slightly over 2 % and provides a solid basis for innovation. Furthermore, Germany has a versatile and competent engineering ecosystem, which should be in a good position to expand into new lines of production when new opportunities arise.

Germany has ambitious climate policy targets aiming at climate neutrality by 2045, five years prior to the EU deadline. While demand for fossil energy has declined and the installation of new energy production has proceeded, Germany is not yet on track to achieve its target. The transition is constrained not only by an insufficient overall supply of green energy but also by an inadequate electric grid to transfer green power from where it can be produced to the locations of consumption. As in other countries, the transition will be a burden on the economy in the medium run: the existing capital stock gets replaced by climate-friendly capital without addition to the net stock.

25

Expert article • 3704

Germany has made extensive use of state subsidies allowed by the relaxation of EU state aid rules since the pandemic. The question nevertheless remains whether the subsidy policy has contributed in the hoped-for degree to green and digital transition. For example, in September 2024 Intel's plans to build a "mega factory" for chip production in Magdeburg was put on hold despite the promise of \in 10 billion of subsidies.

A topical policy question in Germany indeed is to what extent and way government expenditure should be used to promote growth. Typically, the public sector is responsible for a substantial part of infrastructure, as private incentives for its provision tend to be weak. However, in Germany public investment in infrastructure has remained low for a long period of time; the ratio of all German public investment to GDP was 2.3 % on average in 2008-2023, while the EU average was 3.3 % and for example Sweden and Finland posted figures over 4 %. There are in fact many indications that for example transport and communication infrastructures have not developed in line of those of many countries of similar GDP per capita levels.

Low spending on infrastructure is at least in part caused by the tight constitutional deficit rule, in place since 2011; according to the "debt brake" the so-called structural deficit shall not exceed 0.35 % of GDP. Pressures to increase spending on defense will further reduce scope for increasing expenditure on infrastructure and other items likely to support long-term growth. Some relaxation of the debt brake would seem necessary to allow policies needed for better economic performance.

It is hard to avoid the conclusion that the short-term growth prospects remain subdued in Germany. This is obviously bad news for the Baltic Sea region, which is tightly linked to the German economy. On the other hand, the predicament of low growth has been recognised both in Germany and the EU. For example, the report by Mario Draghi lays out extensive policy reforms that could improve prospects for sustainable growth in the EU and in its largest economy, Germany. Should policies change along the proposed lines, substantial improvement in economic performance could be expected.

Vesa Vihriälä

Senior Fellow University of Helsinki Finland



VOLKER WIELAND

Inflation, stagnation and the need for change

Expert article • 3705

ermany has been hit hard by the surge of inflation, the energy crisis and the challenges resulting from the Russian war on Ukraine. While the German economy has recovered from the COVID-19 recession of 2020, economic activity has stagnated in real terms for four years. Real GDP has been stuck at or around the pre-COVID level of 2019. Most recently, the governing "traffic light" coalition consisting of the Social Democrats, Greens and Free Democrats has fallen apart. How did all this come about, what role did inflation play, and what policies are needed to get us out of this predicament?

As a member of the euro area, Germany has delegated monetary policy to the European Central Bank. The ECB's task—as laid down in the Maastricht treaty—is to maintain price stability. 2020 marked the end of a long period of low inflation. Inflation rose quickly throughout 2021, reaching 6% by year end. The Russian attack on Ukraine in 2022 and the ensuing energy crisis acted as an accelerant. In Germany, inflation peaked at 11.6 percent in October 2022 (measured by the annual increase of the harmonized consumer price index). Since then, HICP inflation has declined to 2.4% as of October 2024. The total loss of purchasing power comes close to 20% in just three years.

Monetary and fiscal authorities responded aggressively to the pandemic. The ECB supplied huge amounts of long-term liquidity at negative interest rates. National governments and the EU provided debtfinanced fiscal support on a scale never seen before. And the ECB bought up more government debt than was newly issued.

Monetary and fiscal support were much needed in 2020. Yet, by the end of the year the economy had recovered most of the pandemic decline. The expansionary policies, however, lasted well into 2022. Fiscal support policies were even renewed in that year due to the energy crisis. The ECB maintained negative policy rates till summer 2022. Thus, monetary and fiscal policy supported aggregate demand long after the COVID recession.

Aggregate supply remained constrained, first due to temporary shortages, pre-existing structural problems and post-Covid structural changes, and then also due to the rapid increase in energy costs. As a consequence, inflation rose quickly, first in 2021 and then after the Russian attack in 2022. The speed and duration of the inflation surge were not anticipated. The ECB responded much too late, partly because it considered the inflation short-lived and partly because it had promised to continue net asset purchases and negative interest rates for a long time afterwards. Eventually, it tightened policy quickly from the second half of 2022 onwards. This helped rein in inflation. Headline measures have declined quickly, as energy prices have fallen. But core inflation has also come down. It remains to be seen whether the return towards the target of 2% will be sustained.

Understandably, inflation and stagnation cause much dissatisfaction and frustration. Households want to regain purchasing power. Germany has seen harsh conflict between unions and employer organizations and there have been long drawn out strikes. In a stagnating economy, increasing real incomes for some involves distributing real losses to others. At the same time, all households and businesses have to bear higher real costs for imported energy. Monetary and fiscal support played a role in the surge of inflation. By contrast, the deeper causes of the German economic stagnation are largely on the supply side. They include excessive regulation and bureaucracy, low productivity growth and labor scarcity, lack of competitiveness and comparatively high taxation.

The German government has been slow to normalize fiscal policy but quick to increase the regulatory burden. The "traffic light" coalition was built on debt. As long as crises justified activating the exception clauses of national and European fiscal rules, diverging priorities of coalition partners could be seemingly reconciled. They wanted more generous social transfers, large subsidies to firms to achieve climate and industrial policy goals, more generous public pensions and higher defense spending without higher taxes and social security contributions. Debt made it possible. And the share of government spending and transfers in GDP rose by 4 to 5 percent relative to 2019.

The 2023 constitutional court ruling on the debt brake and the revised EU fiscal rules rendered the debt-based, demand-side oriented approach to policy infeasible. Yet, the ruling coalition proved unable to change course and develop an effective strategy for boosting aggregate supply. Such a strategy requires a significant shift of priorities towards structural reforms and deregulation.

The detailed, control-oriented, subsidy-heavy approach to economic and climate policies needs to be abandoned. Inefficient regulation that leads to burdensome bureaucracy has to be rolled back. Policy should establish framework conditions that allow markets to work and competition to serve as the discovery process that drives innovation and growth. Cost-effective policies that increase the supply of labor, capital and energy would help move the German economy out of stagnation and deliver sustainable growth. Growth is needed to maintain prosperity, protect the climate and build the strength to defend the peoples of Europe and their values.



Volker Wieland

IMFS Endowed Chair for Monetary Economics and Managing Director Institute for Monetary and Financial Stability Goethe University of Frankfurt Germany



SEBASTIAN PŁÓCIENNIK

Germany in crisis: This is not a cyclical downturn

Expert article • 3706

he past year in Germany has been marked by ongoing stagnation. The crisis, which has dragged on for around ten quarters, has dispelled the last hopes that it was merely an unfavorable economic cycle aggravated by shocks of the pandemic and the war in Ukraine. The EU's largest economy is facing structural problems that emerged many years ago and will not be resolved quickly.

This is well illustrated by data related to so-called potential growth, which roughly reflects the economy's ability to expand its production capabilities after being adjusted for cyclical fluctuations and external factors. From the mid-1990s until the pandemic, this potential averaged 1.2% annually. In this decade – as the leading German economic think-tanks predict in a joint assessment - only a 0.4% increase is expected. Over the long term, there will be no spectacular improvement: according to the renowned Council of Economic Experts, the average potential growth by 2070 will be 0.7%, meaning that the economy will grow by barely 40% during this period.

Where should the causes be sought? A major factor is the worsening demographic situation. By 2050, Germany's population could shrink by 16%, with much steeper declines in the working-age groups. Society will age rapidly: as Handelsblatt warns, by 2035, the ratio of people over 65 to those in the working age (20-64 years) will exceed 50%—twice as much as in 2000. This means that fewer and fewer workers will have to support a growing number of retirees. As a result, labor costs will rise, partly due to the increasing burden of funding the overburdened social security system.

Another often-discussed factor is energy. Although Germany survived the shock of cutting off Russian supplies in 2022, the situation is far from ideal. Competitors in other parts of the world enjoy lower prices, which puts many industrial sectors in Germany in a challenging situation. It won't be a marginal difference: according to Dezernat Zukunft, by 2045, electricity prices for industry could be up to 75% higher than in comparable countries. The problems are not just due to the lack of nuclear energy and the cutoff from cheap Russian hydrocarbons: the pace and efficiency of the energy transition leave much to be desired.

Another source of Germany's weakness lies in an investment lag particularly in those by the state for infrastructure. For the past few years, the ratio has remained steady at around 2.6% of GDP, which is about 1 percentage point lower than in France, the main European competitor. Local governments have particularly struggled, cutting spending on modernizing schools, roads, and housing. At the federal level, the underinvestment is symbolized by the condition of Deutsche Bahn, plagued by deteriorating infrastructure, as well as delays in digitalization. The austerity course taken in the previous decade by Angela Merkel's government, which imposed a "debt brake" limiting the permissible structural deficit to 0.35%, is now taking its toll. It was easier to cut investment spending than to reduce social expenditures and subsidies. Unfortunately, companies also followed this trend, resting on their laurels and neglecting the IT sector, while automotive companies, for example, missed the revolution in electromobility. Germany's international environment is not helping either. The prosperity of previous decades was built on the benefits of globalization and an increasingly open global economy. Germany particularly benefited from access to cheap energy from Russia, China's large and rapidly growing market, and the fact that the U.S. bore the main costs of stabilizing the system. This favorable constellation has now fallen apart. Economic liberalism is out of fashion: many countries are resorting to protectionism and industrial policy. War and geopolitical tensions are forcing Germany to diversify its trade streams and investment, while increasing spending on security. It seems likely that the post-war heyday of a "Handelsstaat" is nearing its end.

In light of these unfavorable trends, Germany's incremental decline is likely, but-as it must be emphasized-not inevitable. There are still significant, untapped resources within the economy. For example, restricting access to early retirement, supporting female labor participation, and encouraging longer working lives could improve the labor market situation. Similarly, reducing bureaucracy and accelerating investments-thanks to reforms to the debt brake-could boost the energy transition and lower energy costs. Rising public investment could also encourage very high private savings to switch from low-return bank accounts to supporting new technologies and start-ups. It is also important not to forget about Germany's strengths. It still has outstanding research and development potential-R&D spending exceeds 3.0% of GDP—and a strong industrial base. Economic reforms, which are a key task for the current and future governments, could awaken the economy from its crisis-induced slumber. If they succeed, we will soon forget about the pessimistic forecasts for the coming decades.

Sebastian Płóciennik

Director, Member of the Board The Polish-German Cooperation Foundation Poland



MARKUS JAEGER

Germany should reform its debt brake

Expert article • 3707

ermany, like many other advanced economies, is facing significant spending pressures related to climate change, defense, infrastructure and demographic change, including healthcare and pensions. Estimates by the IMF and the European Commission put projected spending needs somewhere around 2-2.5% of GDP annually. Between now and 2030, spending related to pension and health is projected to increase by 0.6% and 0.3% GDP. Defence spending needs to increase by 0.3% of GDP, while spending on climate and infrastructure ought to increase by 0.2% of GDP and 1% of GDP. In view of these spending needs, Germany should reform the so-called debt brake, which overly constrains its ability to run larger deficits to finance urgent and necessary public expenditure.

Constitutionally mandated debt brake is overly constraining

In 2009, Germany enshrined the so-called debt break in its constitution. The debt brake limits the structural deficit to 0.35% of GDP at the federal level and to zero at the state level. On its face, the debt brake has been very successful. Measured as a share of GDP, German government debt fell by 17 percentage points between 2010 and 2023, whereas it increased by an average of 28 percentage points in the other G7 countries. Last year, all G7 countries had government debt exceeding 100% of GDP, except for Germany where debt stood at a mere 64% of GDP.

All other things equal, lower debt means sounder public finances. A low debt ratio allows governments to quickly mobilize resources in response to unforeseen shocks or in support of important policy objectives without having to raise taxes or cut expenditure. But low public debt is not an end in itself, and reducing public debt that is already at manageable levels has significant opportunity costs in terms of foregone spending and investment. In Germany's case, the debt brake is overly constraining. Not only has its rigidity forced an unnecessarily large fiscal adjustment on the economy this year in a context where debt levels are already low and would have continued to decline over the medium term regardless. But restrictive fiscal policy, such as a failure to invest in productivity-enhancing infrastructure and national security, also has negative consequences in terms of long-term growth and national security.

A back-of-the-envelope calculation suggests that Germany can afford to run a fiscal deficit more than a full percentage point of GDP higher than what is mandated by the debt brake without experiencing an increase in the debt-to-GDP ratio. The IMF estimates that a deficit of 1.6% of GDP would suffice to stabilize the debt ratio at 60% of GDP provided nominal GDP growth averages 2.7%. If, on the other hand, Germany were to strictly adhere to the debt brake indefinitely, the debt ratio would fall to less than 40% of GDP by 2050 and less than 20% of GDP by the end of the present century. Hardly a sensible policy.

A sensible reform would afford the government greater flexibility without jeopardizing sound public finances

Current debt levels are more than manageable and adhering to the debt break prioritizes the reduction of debt over urgent spending needs. A sensible reform of the debt brake would allow the government to run larger deficits without increasing the debt ratio. Even the German Council of Economic Experts and the Bundesbank – hardly bastions of unorthodox economic thinking – support a reform of the debt brake. The Council has proposed a reform that would allow for a higher fiscal deficit of 1% when debt is less than 60% of GDP and a deficit of 0.5% of GDP deficit when debt is 60-90% of GDP. The Bundesbank has proposed a golden rule, which would allow the deficit to exceed 0.35% of GDP provided public investment exceeds a pre-specified level.

However, if the IMF and EU Commission estimates are in the ballpark, increasing the deficit limit from 0.35% of GDP to 1.6% of GDP would not be enough to cover all spending needs. But it would go some way toward addressing the most urgent expenditure needs, including defense and infrastructure. Covering all expenditure needs without raising the debt ratio will require economically and politically difficult choices to be made, such as reducing non-priority expenditure, raising taxes or improving the quality of public spending. But reforming the debt brake would make these choices politically and economically less daunting. Most importantly, however, the government could start addressing high-priority needs right away.

A country as pivotal to Europe's economy and security as Germany needs to pursue a more well- calibrated fiscal policy. It should not adhere rigidly and unnecessarily to an arbitrary and economically-difficult-to-justify fiscal rule. Instead, a more strategic and adaptable fiscal policy should be put in place to address urgent strategic priorities and challenges, such as the defense of the realm, climate change and a declining infrastructure. Compared to its advanced economy peers, whose debt levels are far higher, Germany has some leeway to increase expenditure without having to raise taxes or reduce non-priority expenditure. Germany should therefore reform the debt brake to take advantage of this flexibility, while continuing to safeguard sound public finances.



Markus Jaeger

PhD, Fellow Center for Geopolitics, Geoeconomics and Technology, German Council on Foreign Relations Germany



Far from the path to prosperity

Expert article • 3708

he German economy stagnated in 2024 and its economic output remained at the level of 2019. The outlook for 2025 signals no improvement. This means that Germany is experiencing its longest period of economic inactivity in the last seven decades. In 2023 and 2024 significant declines were recorded in the manufacturing and construction industries. The construction sector is suffering from high financing and construction costs as well as weak investment activity overall. The high construction costs reflect the material and energy problems associated with the pandemic and the war in the Ukraine, as well as high regulatory costs. Several partly mutually reinforcing causes can be named for the manufacturing crisis:

Weak global economy: The geopolitical conflicts are having a negative impact on international investment activity. The high inflation rates resulting from the energy price shocks caused by the war have weakened consumption worldwide. This global slump is dampening foreign demand for German industrial goods and exports. In the major industrial sectors in Germany, foreign sales account for around two thirds of business.

Weak domestic demand: In addition to weak external demand, there is an investment crisis in Germany. The construction recession has led to a significant drop in demand for industrial intermediate goods and construction-specific capital goods. In addition, the rise in financing costs is dampening general investment activity and thus an important part of the German industrial spectrum.

Uncertainties: The geopolitical upheavals are not only having a direct impact on global investment activity. Rather, the political uncertainties are also creating a business environment characterized by economic imponderables. In addition, uncertainties in the context of climate policy and, above all, the unclear economic policy course in Germany are causing caution and restraint among companies and consumers. The end of the coalition government in Germany in November 2024 and the uncertain outcome of the planned election in early 2025 are contributing to economic policy uncertainty.

Loss of competitiveness: Last but not least, the competitive position of internationally oriented companies has deteriorated, which in turn is curbing demand for industrial goods via the foreign trade channel and the propensity to invest domestically. As a result of the multiple cost shocks caused by the sharp rise in energy prices, higher raw material prices and production costs due to global logistics problems and higher labor costs, German industry has lost price competitiveness. Added to this is the appreciation of the effective exchange rate of the Euro against a number of international competitors.

The services sector, which accounts for around 70% of total economic activity in Germany, has so far provided an economic counterbalance. Growth was recorded across the entire spectrum of the service economy in business services, consumer-related services as well as in the public and social sectors. The positive income trend as a result of wage increases and normalizing inflation rates as well as expansive government activity are currently benefiting this part of the German economy. Nevertheless, this is at best sufficient to compensate for the declines in manufacturing and the construction industry.

The arguments cited for the current manufacturing crisis cannot only be used to understand the poor cyclical situation. They partly overlap with long-term structural shocks. From a structural point of view, geopolitical changes and adjustment burdens have been causing an economic reorientation. This relates to the medium to long-term significance of previously familiar sales markets, the reliability of international supply chains and logistics systems, the supply of raw materials and energy and, last but not least, the international transfer of knowledge. The restrictions experienced as a result of the pandemic are being exacerbated by new tensions and uncertainties due to the changing geopolitical climate. It remains to be seen what long-term adjustment burdens the new US administration will impose on the global economy and Germany. Added to this there are the direct adaptation burdens for companies due to climate change and the political transformation goals. The acute deterioration in competitiveness must also be seen in a long-term context. The quality of a business location is influenced by a variety of conditions - such as the availability of skilled workers, energy supply, the various infrastructures and not least by the fundamental economic policy orientation.

In terms of depth the current situation resulting from the pandemic and geopolitical upheavals has already exceeded the level of all the previous crises in Germany, in some cases considerably. As far as the duration and final impact on the economy as a whole is concerned, it remains to be seen how long the current crisis will last and thus how far the gap will widen. In order to evaluate an economic crisis, the necessary pace of recovery can be calculated. At a macroeconomic level, a growth rate of 1.7 to 2.1 percent per year was required in the previous crises in order to overcome the "underwater" periods. In terms of the acute crisis a permanent annual economic growth of 2.5% for the next six years is necessary. This appears to be a challenge that is almost impossible to achieve. The growth potential of the German economy is likely to be severely curbed by demographic trends in the coming years. Added to this are the adjustment burdens resulting from the geopolitically driven restructurings and by the decarbonization of the economy. There are serious doubts that the German economy will not return to the path of prosperity experienced in the last three decades.



Michael Grömling Professor

Cologne Institute for Economic Research (Institut der deutschen Wirtschaft) Germany

groemling@iwkoeln.de



MARCEL HADEED

The cracks in Germany's economic foundation

Expert article • 3709

he German growth model is under pressure. It has benefited more from Russia's natural resources and China's rise than any other EU country. Cheap energy guaranteed the costcompetitiveness of German manufactured goods, particularly in those energy-intensive industries (cars, electrical machinery, pharmaceuticals) that sit atop Germany's export table, while China provided the sales market for them.

In a new geopolitical reality, the German economic model needs to evolve to revive flatlining growth, while becoming sustainable and digital. These external pressures are well-known. Less known are the domestic factors that challenge the foundation of any future success of the German economy. I want to highlight three of them that seem particularly conspicuous.

Lack of know-how in growth industries of the future

German companies face difficulties in filling IT jobs. This gap in needed expertise is caused by too few graduates from MINT faculties, and the failure to attract foreign talent. In spring 2024, it was estimated that the skilled labor shortage in MINT-sectors reached 240.000 employees.

In this context, Germany seems to be losing the race to build the technologies of the future. Germany has always prided itself on high tech and high-quality products. Today, it is lagging behind the US and China in key industries, such as in EV or solar. In others, such as chip making, hydrogen conversion, or artificial intelligence, there is no German footprint to begin with. Not since Wirecard, whose demise was encapsulated by a movie-worthy international manhunt, has Germany had a global champion in FinTech.

The difficulty of doing business

Germany ranks 22nd in the *ease of doing business index*, and 31 in the category of starting a business. One main obstacle for entrepreneurs is red tape. Companies in Germany need to navigate the challenge of its intricate multilevel governance system, where municipalities, states, the federal government, and sometimes the EU are relevant regulators. There are vast differences in the digitalization of public services between federal states, leaving already structurally weak regions further behind. And lack of coordination between states often leads to administrative chaos. A case in point is Germany's digital tax system. While a central software has existed for the end user since 2001, in the backend, each federal state employs its own system. As a result, cross-border tax matters are still processed analogously. Worse even, 85 percent of public service interactions involve municipalities and counties. And each of the over 11.000 municipalities and 300 counties is in charge of its own digitalization. All this complicates efficient administration and translates into real costs of doing business.

The faltering infrastructure

Lastly, German infrastructure is not up for the challenges of the so-called twin transformation of decarbonization and digitalization. One key pillar of Germany's decarbonization strategy is its railroad network. Evermore rail traffic (of people and goods) is desired and expected. Yet, its dilapidated infrastructure is already buckling, facing an investment need of 45 billion Euros in maintenance and repair alone. "The Bahn" has become a sore subject for the supposedly punctuality-obsessed Germans: Less than twothirds of long-distance passenger trains are on time. Cargo trains show similar numbers.

Germany's energy infrastructure faces comparable challenges. While less battered than the railway network, its scaling challenges are also much greater. Decarbonization via electrification and green hydrogen requires a powerful and integrated smart grid system. Already, the construction of over 13.000km of new grid is planned, most of which until 2030. However, neither is the timely success of this gigantic infrastructural endeavor guaranteed, nor will it be enough to ensure the cheap and clean energy required for the envisaged dynamic and green economy of the future. Germany's digital infrastructure shows a more differentiated picture, but the 15 percent optic fiber coverage ranks last in European comparisons.

Conclusion

New global realities force the German economy to readjust. Yet, domestic economic challenges are immense and will remain relevant for years to come. Not all could find space here. The trajectories for elderly- and childcare, downtrending educational results, and increasingly challenged (mental) healthcare systems, all of which decrease availability and productivity of workers, are worth mentioning.

Politically, mastering these challenges will test Germany's resilience. The mainstream needs to fend off an ever more extreme – and more successful – rightwing populism, while developing a modern digital administration and welcoming integration culture.

Marcel Hadeed

Senior Foresight Consultant Foresight Intelligence Germany

marcel.hadeed@foresightintelligence.de



ARTO LAHTI

German success recipe: Monopolistic competition

oseph Schumpeter at Harvard (1932-1950) gave economists food for thought with the concept of creative destruction. He claimed that an innovative transformation in a capitalistic society is a conflict-ridden process, and entrepreneurs are the heroes of the drama. Schumpeter introduced the concept of temporary monopoly profit as the lifeblood of innovativeness. His student Edward Chamberlin at Harvard (1937-1967) made significant contributions to microeconomics, particularly on competition theory. He constructed the theory of monopolistic competition in which differentiation is a firm's best response to a downward sloping demand curve, and when there are many firms or many competing products that are close substitutes in nature and many specialty brands. Monopolistic competition is modified by a German economist Erich Gutenberg (1987-1984). His monopolistic scope concept (monopolistische bereich) advises firms to specialize in narrow market segments. This is the market strategy that German and Nordic SMEs follow in global competition. Monopolistic competition is rewarding in globalizing markets and 60% of the total (Figure 1). In Paul Krugman's writing (1979, 1995) monopolistic competition and differentiation are the two main drives of trade. Chamberlin's contribution has been fundamental to the trade-driven global economy, although not accepted by most of orthodox economists (Lahti, 2010, 2012, 2020, Lahti, Talvela, Rajala, 2023).

Perfect competition	Monopolistic competition	Oligopoly competition	Monopoly
Theoretical	Practical	Practical	Theoretical
core 1:	case:	case	core 2:
About 10 %	About 60 %	About 20 %	About 10 %
of markets	of markets	of markets	of markets

Figure 1. Competition and globalizing markets.

The monopolistic competition theory contributes strongly to the economic miracle of Germany in the global markets since the 1990s. Venohr (2010) has found that there are 1,500 firms in Germany that are world-market leaders (among three best) in their segments. About 90% of HCs act in B2B-markets and the most important industry group is the Machinery & Equipment industry. They are called Hidden Champion (HCs). The term is coined by Hermann Simon (Simon 1990, p. 876). HCs specialize in globally market segments that multinational companies (MNCs) avoid. MNCs establish their market power through strategic alliances in-house R&D and portfolio investments abroad (Cross, 2000). HCs are known only in their own area, but not to the wider public (Simon, 2009, p. 15). They are often concealed behind a curtain of invisibility and business secrets. Often, but not always, they are family-owned. Their values are conservative: hard work, high performance, and high employee loyalty. HCs produce high quality products that are ranked top in the world. For them, market leadership means "inner flame" to seek top performance, by unique products utilizing the in-depth knowledge about customers. HCs "earn" their market leadership through performance and not through price aggression.

Expert article • 3710

HCs have their advantage in organizational learning and technological innovations (Simon, 2009). HCs have efficient contracts (social, legal) between owner-managers and employees with "different personal utility functions" (Gutenberg, 1951). Simon's writings (2009, 2014) on German HCs revolutionize the standard business theories. HCs have occupied global leadership positions despite their small size. They are highly Schumpeterian in their actions. The HCs' business recipe is working well in international markets. HCs invest in internationalization early in their growth paths. The high co-dependence between HCs and their customers means a risk to their customers. In oligopoly, there are barriers to entry. A high co-dependence between HCs and their customer is not an entry barrier, since the customers have a free choice. HCs do small things better than their competitors contributing to them differential advantage (Alderson, 1957, 1965). A market leadership position of a firm is highly rewarding but difficult to achieve in competitive markets (Drucker, 1985). Following their integrating model of marketing, HCs use to develop their own unique resource configuration models that are oriented toward customer needs.

German and Finnish marketing professionals are both honest and well-educated. German marketers have succeeded to commercialize their reliability, credibility, and authenticity. For Finnish marketers, the same kind of qualities means a handicap in international arenas. German HCs have attained a high customer loyalty worldwide with their technological superiority. Most of Finnish companies are in serious crises (Lahti, Talvela, Rajala, 2023) and only some companies have succeeded maintain a high profitability in global markets. Most on about 1.000 internationalized companies have a relatively weak growth rates and profitability (ROI) when German HCs have high (90%) success rates. A reason to the paradox is academic marketing education. International marketing is not possible to learn without personal internationalization of leaders and professors in marketing. In Germany, marketing leaders know the company and target markets. So, it is in highly successful companies in Finland, e.g. Nokia, Kone, Supercell or Bayer). Most students in universities are obliged to listen abstract sociopsychological lecture by marketing professors that has nothing to do with the global markets or relevant theories. German professors like Hermann Simon are excellent in practice. They understand completely the monopolistic competition models that is the theoretical foundation of marketing by Chamberlin and Gutenberg, and they travel all around to world to observe personally how customers are acting in various continents.

Arto Lahti

Ph.D., Professor School of Business, Aalto University Finland

arto.lahti@aalto.fi



32

KLAUS SCHRADER

Challenging the shortage of skilled workers

Expert article • 3711

he shortage of skilled workers has become the focus of political and public attention in Germany as a major obstacle to future economic development. It is foreseeable that the working-age population will shrink rapidly and that shortages will occur in an increasing number of professions. The significant decline in the labor force is due to the fact that the baby boomers of the post-war period will retire by the mid-2030s. At the same time, the demand for labor will not decline to the same extent as the supply of labor, resulting in a growing surplus demand. Bottleneck analyses show that there will be a shortage of workers in almost all sectors and that bottlenecks will affect a large number of occupational groups at all skill levels.

The shortages of skilled workers, specialists and experts are particularly evident in the economically strong German states in the south of Germany - Baden-Württemberg and Bavaria - where the widespread demand for qualified workers is obviously difficult to meet. But even in the economically weak Baltic Sea federal state of Mecklenburg-Vorpommern, the bottlenecks are above average, which points to the lack of attractiveness of this region. In the second Baltic Sea federal state of Schleswig-Holstein, the bottlenecks are below average, but due to the comparatively narrow economic foundation in the north, sectors that have a comparatively high demand for skilled labor in other federal states are underrepresented here. This means that structural weaknesses and a shortage of skilled workers come together at the German Baltic Sea, which could accelerate an economic downward spiral.

However, Germany is not alone in facing this future challenge: the shortage of skilled workers is also seen as a key problem for European economies at EU level. In addition to the shortage of workers, a skills mismatch is increasingly being observed in a growing number of sectors and professions. Against this backdrop, the recommended political solutions hardly differ from policies in Germany: at the European level, too, there is no "flagship instrument" for reducing the shortage of skilled workers, but rather a broad package of measures and the involvement of a large number of stakeholders is recommended. On the one hand, it is up to employers to create greater incentives for people to enter the labor market, work longer hours and immigrate by offering wages and attractive working conditions in line with these shortages. On the other hand, it is a government task to relieve the burden on labor income and further develop the necessary infrastructure in the areas of education and childcare. In Germany, however, it is not only the central government that has regulatory powers in these fields; the federal states also have a wide range of labor market related policy instruments at their disposal.

As the shortage of skilled workers is a cross-border problem in the EU, international cooperation can lead to superior solutions. Due to relevant regional competencies in Germany and Denmark, cooperation between the German federal state of Schleswig-Holstein and the Danish region of Syddanmark would make sense on the edge of the western Baltic Sea. In Schleswig-Holstein, there is a general shortage of skilled workers among people who have completed an apprenticeship or graduated from technical schools, with a particular focus on skilled workers in nursing and

medical professions, construction, logistics, trade, the hospitality sector and other tourism services. In the case of higher qualifications, activities in technical professions, in the IT sector and in higher-value services are added. This development in Schleswig-Holstein of shortages is similar to the situation in the southern Danish labor market regions.

With a view to these similarities in Schleswig-Holstein and Southern Denmark the idea of a coordinated labor market policy appears to be obvious that could go beyond the previous approaches to creating an integrated labor market in the border region. In the course of closer cooperation, imbalances in regional submarkets could be overcome more easily through cross-border matching. Moreover, even with comparable bottlenecks on both sides of the border, an integrated labor market could generate "critical masses" in terms of placement as well as education and training, leading to an expansion of labor market policy options on both sides. This would increase the attractiveness of the joint labor market region and promote adhesion effects among local trainees, graduates and skilled workers. In addition, a larger, borderless labor market would be more visible and attractive to the outside world, which would facilitate qualified immigration. In the western Baltic Sea region, labor market cooperation could develop into a driver for further economic integration besides projects in the areas of transport infrastructure or energy supply.



Klaus Schrader

Senior Economist Kiel Institute for the World Economy (IfW) Germany

klaus.schrader@ifw-kiel.de



THOMAS STEGER

Employee ownership – the time is ripe!

Expert article • 3712

mployee ownership, i.e. any arrangement in which employees own part of their company, has a long tradition in Germany, dating back to the mid-19th century. Some budding entrepreneurs and academics promoted the idea of allowing employees to share in the profits (and capital) and decision-making of companies. The idea behind this was to increase employees' motivation, identification, and engagement within the firm, as well as their private wealth accumulation.

Since then, little has changed in this idea and its objectives and numerous academic studies have shown the advantages and added value for companies and employees alike. Today, more than 4,200 companies practice some form of employee ownership model, often depending on their legal form. Most widespread are employee shares (in large joint-stock companies), silent partnerships and profit sharing (in small and medium-sized companies), and virtual shares (in start-ups). However, this sums up to only about 2–3% of all companies, which puts Germany in the middle of the pack in the European context (far behind what has been achieved, e.g., in the UK or France) and leaves much room for improvement.

Since at least the 1970s, German governments have tried to promote employee ownership. So far, different tools have been used and, in particular, the tax exemption has increased only slowly over the years. Employers and unions alike have long been reluctant to embrace employee ownership, considering it to be too expensive and offering employees an increasing voice (employers) and fearing the double loss of jobs and savings in the event of insolvency (unions).

Recently, the German government passed a new law to improve different financial market aspects ("Zukunftsfinanzierungsgesetz"), which also brought with it some improvements for employee ownership. The tax exemption was increased to 2,000 EUR (from 1,440 EUR). In addition, a deferred taxation was introduced for small and young companies (especially for start-ups).

However, the new law is far from creating a bright future for employee ownership. The level of tax exemption is still too low to provide a real incentive. The tax rules continue to discriminate against internal succession compared with external succession. However, the whole package looks more like a politically designed programme to promote start-ups, which does not really satisfy start-up companies as they did not receive what they really wanted, namely less discriminating taxation regulations. Finally, because it was a mere compromise, the new law was not really communicated widely, especially not in the context of employee participation campaigns.

It is therefore not surprising, as recent studies have shown, that companies themselves show little initiative in adapting their programme to the new tax exemption or even in introducing new employee ownership schemes. The German unions themselves had several concerns about the new law and saw it as competing with the traditional German system of employee codetermination. Consequently, they are still not making employee ownership one of their core topics. In sum, it can be said that the situation for employee participation in Germany is still not very favourable. However, there is some light at the end of the tunnel. More recently, several initiatives have emerged, bringing together employers' associations, unionists, company managers, employee shareholder associations, as well as lobbyists, experts and researchers interested in the topic. They share common interests and appear to have the potential to move things forward. Some of their ideas and postulates include (but are not limited to):

- to improve the communication and promotion of employee ownership in general and of specific schemes and plans by all parties involved,
- to link employee ownership with several neighbouring financial topics (such as individual wealth formation, retirement plans etc.),
- to provide a clear political signal in favour of employee ownership by fixing the tax exemption at the level of 5,000 EUR,
- to reduce bureaucratic hurdles for the introduction of employee ownership schemes (particularly for small and medium-sized limited liability companies),
- to end discrimination against virtual employee shares among start-up companies,
- to reform and improve the opportunities to use employee ownership as a major tool for corporate succession (planning),
- to rethink the traditional tariff politics and to implement employee ownership plans more strongly as a major tool, both on the side of employers' associations as well as of unions,
- to introduce and adopt successful international models (e.g., EOTs) and to support harmonisation of employee ownership plan regulations on the international level.

The time is ripe for employee ownership in Germany to take a major step forward!



Thomas Steger

Professor of Leadership and Organization University of Regensburg Germany

thomas.steger@ur.de



German cities and climate change:

An East-West divide?

Expert article • 3713

ven 35 years after the fall of the Berlin wall, there are still many differences between East and West Germany. This applies to many policy areas, and climate policy is no exception. Examples include the existence of climate change acts (climate mitigation and adaptation) in the German federal states (*Länder*). While almost all states (*Länder*) in former West Germany (Federal Republic of Germany, FRG) set ambitious reduction goals for greenhouse gas emissions and measures to reach these goals (such as mandatory heat plans for local authorities), all states – except Thuringia – in former East Germany (German Democratic Republic, GDR) have decided against passing such laws.

The same applies to German cities and towns. Most forerunner cities (such as Münster, Freiburg, Heidelberg, Hanover, or Munich) are located in the former BRD, while most cities in the former GDR lag behind. Although bigger cities in the former GDR – often the state capitals – are far more active than their smaller counterparts, the number of forerunners in East Germany remains modest. The most striking examples are Potsdam, the state capital of the federal state of Brandenburg, and Rostock, the biggest city in the federal state of Mecklenburg-Western Pomerania.

Why is there such a gap between the forerunner and the laggard cities? Studies have found that there are structural and contextual factors that support progressive local climate action. These factors may be more important than a city's location in the eastern or western part of the country. The most important structural and contextual factors are: (1) a young and growing population; (2) low unemployment rates and a sound economy; (3) local political support for climate action; (4) a supportive and broadly diversified research environment; and (5) ownership of municipal companies (in particular in the energy, transport, and housing sectors).

Most of these factors also apply to Potsdam and Rostock. Both are growing cities of roughly the same size (with almost 190,000 inhabitants in Potsdam and around 209,000 in Rostock). Both cities started to tackle climate change already in the early 1990s, i.e., much earlier than most German cities. Both cities set ambitious greenhouse gas emission reduction goals and have – unlike many other German cities – significantly reduced their emissions. Although their outreach activities to promote their successful climate policies might be less developed than those of some cities in the western part of the country, Potsdam and Rostock can be considered as forerunners in Germany.

While research on subnational climate policies in Germany clearly shows an East-West divide, the cases of Potsdam and Rostock indicate that the development of ambitious climate mitigation and adaptation strategies is nonetheless feasible in post-socialist East German cities. However, such initiatives are not supported by the federal states (*Länder*), where Potsdam and Rostock are located. Indeed, the German federal states of Brandenburg and Mecklenburg-Western Pomerania have been far less active in the area of climate policy than their peers in the former FRG (such as Baden-Württemberg, North Rhine-Westphalia, or Schleswig-Holstein). Therefore, cities like Potsdam and Rostock depend even more on national support to implement their ambitious climate policies than cities in West Germany. Both cities were supported not only by a general funding program (the so-called *"Kommunalrichtlinie"*), set up by the federal government in Berlin, but also by another national funding program for forerunners (*"Masterplankommunen"*). Cooperation and networking with other forerunner cities were most helpful for Potsdam and Rostock because support at regional level was missing. Instead, both cities applied for national funding and started to cooperate with other national and international forerunners.

Against the background of the current polycrisis, becoming climateneutral has developed into a very challenging endeavor. Unlike forerunner cities in the Nordic countries, German cities still depend on fossil fuels to a large extent. Moreover, their own municipal funds are very limited, and support by the federal government in Berlin is declining, due to Germany's current political and financial crisis. This situation has changed the political agenda in the whole country and may lead to cutbacks after the upcoming re-election, which will most likely affect cities and towns in East Germany stronger than their counterparts in the western part of the country. Nevertheless, the impacts of climate change depend on territorial and place-based vulnerabilities and will not follow the spatial patterns of the existing East-West divide.



Kristine Kern

Professor Leibniz Institute for Research on Society and Space, Germany & Åbo Akademi University Finland

kristine.kern@leibniz-irs.de

Wolfgang Haupt Head

Research Group, Urban Sustainability Transformations, Leibniz Institute for Research on Society and Space Germany

thomas.steger@ur.de



FRAUKE WIESE

Strategies for achieving climate neutrality in Germany

Expert article • 3714

chieving climate neutrality is essential to mitigating climate change and preserving the foundation for a good life for everyone on Earth. Acknowledging this, the ratchet mechanism established in the Paris Agreement has helped sharpen climate protection ambitions, leading several countries to set target years for achieving climate neutrality. The target year set by the German government is 2045. A wide range of modelling exercises explore potential pathways to climate neutrality across the energy, building, industry, and agriculture sectors. Despite the diversity of approaches and solution strategies for this major challenge, most scenarios feature variations on certain key components of future energy systems. Among these, converting our electricity system to 100% renewable energies is a critical one. The International Energy Agency (IEA) has stated that the electricity sectors of industrialised countries must be climate-neutral by 2035 in order to meet the 1.5°C target. Against this backdrop, the G7 countries have committed to achieving largely climate-neutral electricity sectors by 2035. In line with this, the German government aims to reach 80% renewable energy in Germany's gross electricity consumption by 2030. During the first half of 2024, renewables - mainly from wind and solar energy, supplemented by biomass, hydropower, and a small amount of geothermal energy - accounted for approximately 57% of that consumption. Nuclear power no longer contributes to the German electricity system, as the last three nuclear power plants in Germany were shut down in 2023. The country has also decided to gradually phase out coal, and fossil gas will no longer play a role in its renewable electricity system in the future.

In 2023, unlike the previous two years, Germany imported more electricity than it exported. This occurred because, at certain times of the day during certain periods of the year when the German grid transmits little solar and wind energy, electricity from Denmark, France, Norway, and other neighbouring countries is cheaper than that from German coal or gas-fired power plants. Despite having sufficient capacity to meet its domestic demand hour by hour, Germany's participation in the integrated European electricity system and market means it uses the electricity with lowest marginal costs, regardless of national borders. The future development of net imports for Germany will depend on the pace of its renewable energy expansion and grid enlargement. Whether Germany becomes a net importer or exporter in a 100% renewable electricity system will depend on the energy transition paths of all European countries, with most scenarios assuming a relatively balanced export-import rate. In any case, European electricity trading is a key pillar on the path towards climate neutrality in Germany and Europe as a whole, as it enables the use of the electricity sources with lowest marginal costs - typically solar, wind and hydropower.

Currently, progress in the heat and transport sectors remains slower than in the electricity sector. In 2023, renewable energy sources accounted for approximately 19% of final energy consumption for heating and cooling in Germany, while their share in the transport sector amounted to 7.3%. A main strategy for reaching climate neutrality in these sectors is electrification. In the heat sector, heat pumps – which use ambient heat and electricity to supply process heat and heating up buildings directly or via district heat networks – are a key component for climate neutrality. These can partly be supplemented by biomass, solar thermal energy, and heat storage systems. Electrification is also a central strategy on the path to climate neutrality in the transport sector, as it utilizes the energy generated by wind and sun more efficiently than approaches that first convert such energy into e-fuels before burning it again in combustion engines.

The high level of electrification required for climate neutrality will increase the demand for electricity from wind and solar power. What cannot be covered directly by renewable electricity, such as flights, certain industrial processes, or – depending on the storage options – peak load hours in the electricity system, are expected to be covered by alternative energy carriers like hydrogen or its derivatives (such as e-kerosene for airplanes and hydrogen for industrial processes). Here again, renewable electricity and to some extent biomass are required to produce green hydrogen or other renewable energy carriers. The various scenarios for climate neutrality differ greatly regarding the proportion of energy carriers produced domestically in Germany versus those imported. However, the figures in all scenarios emphasize the significant challenges that capacity and infrastructure expansion pose.

Those challenges can be lowered by an additional strategy that is currently underrepresented despite its potential to lower risks, increase energy sovereignty, reduce costs, and increase the likelihood of a successful energy transition: namely, by reducing final energy demand not only through technical measures (efficiency) in relative terms, but also through an absolute reduction in demand for energy services. This can be achieved by setting framework conditions that make the less energyand resource-intensive behaviour the more attractive option, while still ensuring sufficient energy services for all (sufficiency).

Currently, demand for energy services like living space heating, vehicle ownership, freight kilometers, flight kilometeres, and the use of electrical devices continues to rise both overall and on average per person in Germany and Europe. To begin to meet the challenges posed by the energy transition, these demands need to be lowered or at least stabilised while still securing a basic level of energy services for everyone. Both the social and the environmental goals can be achieved by distributing living space per person, travel distances, private car and plane usage, and product consumption more evenly within Germany and across Europe.



Expert article • 3714

The European climate neutrality scenario CLEVER (Collaborative Low Energy Vision for the European Region) shows that Europe can achieve climate neutrality by 2045 without relying on nuclear energy, imports to Europe, or carbon capture and storage (CCS) if Europe can reduce its final energy demand by approximately half. Half of this reduction would be achieved through technical measures (efficiency), while the other half would result from framework conditions that prevent further increases in living space and mobility (sufficiency). A key factor for this effort to succeed is strong European solidarity, characterized by extensive crossborder exchanges of electricity and other energy sources, as well as harmonized living standards for energy services.

Thus, in addition to the strong expansion of renewable energies, the electrification of the heating and transport sectors, and European energy solidarity, decreasing final energy demand by reducing overconsumption should be a central pillar of Germany's strategy for achieving climate neutrality.

Frauke Wiese

Associate Professor Department of Sustainable Energy Transition, Europa-Universität Flensburg Germany



MICHAEL LABELLE

Expanding the ring of European energy security

Expert article • 3715

hat lies in ruins are not only Ukrainian cities but also many of our basic security assumptions. The President of the European Commission, Ursula von der Leyen, (von der Leyen, 2024)

Integration of energy markets is logical for both efficient allocation of resources and for security. Since the 1950s and the formation of the European Coal and Steel Community interdependent energy and industrial relations have guided European integration efforts. Another milestone was reached in the 1970s and early 1980s when Austria and West Germany received Soviet gas through a new network of transcontinental pipes. After the 2004 enlargement taking in former Communist countries and further market reforms, the energy market of the European Union continued its decades-long integration. This process, particularly in Germany would go largely unquestioned until Russia's February 2022 invasion of Ukraine. Soon, integration flipped to the disintegration of trade.

Despite previous disputes between Germany and Poland over solidarity in the gas market, a common front emerged. Within one year, a significant change was realized in the delivery of fossil fuels. Europe cut its Russian gas imports from over 40% to less than 10% in 2023. With a full phase-out envisioned by 2030. How does Europe rebuild a new energy security to meet its high energy demand?

First through institutions. Since the 2000s, the EU has consistently built new institutions and established new goals to be carbon neutral by 2050. This includes the EU Emissions Trading System (ETS), Agency for the Cooperation of Energy Regulators (ACER) and clear targets of 55% in the reduction of Greenhouse Gas emissions by 2030 – which were sped up in the REPower EU package after Russia's invasion. Now, there is the joint purchase of gas through the EU's AggregateEU platform. Institutions are at the heart of the EU's energy market.

Second, Europe rebuilds its energy security through technology. Coal and pipeline gas is replaced by shipborne liquefied natural gas (LNG), prices drop for solar PV, wind generators, and batteries. Investments in new factories producing these in Europe or imported into the EU shift security away from raw natural resources of fossil fuels and to production chains. The knock-on effect is the definition of a secure energy system widens. Technological developments contribute to and reframe energy security. Today, we now speak of gas security of supply, whereas in the 1970s energy security was defined by oil. Western and Eastern European countries pivoted to Soviet gas and oil after the Middle Eastern oil crisis in the 1970s. Energy transitions are fueled by insecurity and in turn redefine energy security. The technologies of electrification are now included in energy security assessments.

And third, energy security is assured through rules and regulations. In the past, European fossil geopolitics were characterized by attracting foreign companies and governments to "come and play" (Goldthau and Sitter, 2015, p. 2). These actors accepted rules and regulations that enabled the EU to meet its geopolitical strategic goals. In the past, this largely meant sending fossil fuels into the EU market, such as Russia accepting market rules. This now includes market policies aimed at Chinese products. In 2024 there are new tariffs on imported Chinese electric vehicles. In 2024, further steps may come for Chinese batteries and EVs produced in the EU, such as technology knowledge sharing. 'Coming to play' in the EU's marketplace is evolving as the concept of energy security evolves. The figure below demonstrates the expansion of the EU's energy security framing. The EU's internal market rules apply to its electricity and gas market. The foundation of these can be seen in the earlier energy packages, such as the Third Energy Package which ushered greater market liberalization and institutional reforms. These tied in and expanded the flow of fossil resources into the EU but largely enabled the gas market to embrace Russian and Central Asian gas. Later, these supply routes would become more involved in the geopolitics of gas, as the relationship between Russia and different EU member states changed. Now, as the EU shifts to electrification and the integration of renewables with battery storage technologies, the resources, processing, and manufacturing become wrapped into consideration of energy security. What was once the remit of industrial policy now has larger implications for the selfsufficiency of manufacturing capacity, knowledge, and access to the resources of a cleaner energy system.



Figure 1 Spatial structure of the EU energy market

The changed debate around energy security in the EU reflects both the success of energy policy in Member States and at the EU level. The movement away from fossil fuels comes at a time when there is a plethora of fossil fuels on the global market. The ability for Europe to import LNG at a moderate price level above Russian pipeline gas demonstrates access to fossil fuels is not a limiting factor for their use. Energy security now includes technologies essential for electrification. Over the past fifty years, the world moved from oil to gas and now to electricity in redefining what energy security means. It is this new order that the EU needs to use its market power and institutions to secure.



Michael LaBelle

Associate Professor Central European University, Department of Environmental Sciences and Policy Austria

labellem@ceu.edu



ACHIM WAMBACH

Revival of industrial policy in Germany

Expert article • 3716

ermany has long advocated for an economic policy model in which the state sets the rules but does not intervene directly – the social market economy. As the first Minister of Economic Affairs of the Federal Republic of Germany, Ludwig Erhard, phrased it in a speech to the European Parliament in 1962: "What we need, in my opinion, is not a planning programme, but a regulatory framework."

These times are long gone, if they ever even existed. Already in past decades, the German government supported numerous firms and industries directly. But the scope of state intervention has increased recently. State aid has grown from about \in 26 billion in 2000 (0.8% of GDP) to \in 74 billion in 2022 (1.9% of GDP). For comparison: In the EU, state subsidies rose from around \in 97 billion in 2000 (0.7% of GDP) to \in 228 billion in 2022 (1.4% of GDP).

Subsidies in times of crisis

A significant part of these company subsidies was crisis-related. Starting with the 2008 financial crisis, when banks and companies received liquidity support, financial assistance surged during the COVID-19 pandemic and peaked with the "Doppelwumms", a phrase coined by Chancellor Olaf Scholz for the economic stimulus package during the energy crisis 2022. At the European level, this prompted complaints, e.g. from Vice President Vestager, who argued that Germany was giving its firms an unfair advantage, since other countries could not afford such generous programmes. However, this criticism overlooks that German companies helped to fund these subsidies through some of the highest corporate tax rates in Europe.

Subsidies for economic transformation

Supporting firms in navigating the economic transformation towards decarbonisation has become one of the new rationales for industrial policy, alongside more traditional goals, such as funding research and development and providing regional support. Such measures should however be seen in the context of the EU Emissions Trading System, which puts a price on harmful emissions. This reduces the need to subsidise green investments, as they become self-financing when the fossil fuel counterpart becomes more expensive.

Yet, in the absence of a global CO2 pricing system, and with the Carbon Border Adjustment Mechanism providing only limited protection for European companies against unfair competition, it may be necessary to help industries make the transition. The German government is accomplishing this with the KTF – the Climate and Transformation Fund. Companies receive *Carbon Contracts for Difference*, which pay the difference between the current CO2 price and the CO2 price necessary to make the green investment profitable. In the first bidding round for these contracts, ϵ 4 billion was available, which was oversubscribed by the applications from around 20 large and medium-sized companies. The next bidding round, which is currently underway, is set at ϵ 19 billion. It is advantageous to auction off these subsidies, as the goal is to transform

an industry, and not necessarily every company in the industry. While the contractual structure has its merits, it also insulates companies from movements in the price of CO2. This might lead to inefficient investments, since the price of CO2 is the main allocation tool for green production and investment. A better solution would be to use green lead markets instead. For example, requiring cement users to use 10% green cement, with increasing levels over time, would create a market for green cement. Firms that invest in green cement could thus capitalise on their investments without the need for subsidies.

A resilient economy

The supply chain problems during the COVID crisis and Russia's interruption of the gas supply have put supply chain security and resilience on the agenda of industrial policy. Germany supports the European Raw Materials Act and is involved in international negotiations to ensure better access to raw materials.

One instrument for more supply chain security is the use *Pandemic Preparedness Contracts*, which the German government established after the COVID crises. With these contracts the government subsidises pharmaceutical firms such as BioNTech to develop vaccine production capacity in Germany, at an estimated cost of around \in 3 billion by 2029.

The European Chips Act, with €20 billion of German funding allocated to major companies such as Intel (€10 billion), TSMC (€5 billion), Infineon (€1 billion), and ZF/Wolfspeed (€600 million), is often cited as another measure to boost resilience. However, there are doubts about its effectiveness. First, economic theory suggests that potential supply chain problems are more effectively tackled at the beginning of the chain rather than at the end or in between. Second, the subsidies were originally proposed to reduce dependence on Taiwan. However, the US, through its CHIPS and Science Act, launched a substantial \$280 billion subsidy programme, of which over \$70 billion is earmarked for the chip industry, which reduces the need to locate chip industries in Europe for geostrategic reasons. Meanwhile, Intel and Wolfspeed have announced that they are postponing the construction of their factories.

How to adapt the regulatory framework of the social market economy to today's challenges with regard to decarbonisation and resilience will be the most important task for German economic policy in the years to come.



A c h i m W a m b a c h President ZEW – Leibniz-Centre for European Economic Research Germany



NIKLAS BECKER

Germany's energy transition

Expert article • 3717

ermany is fundamentally restructuring its energy supply to rely on renewable energies in the future. The country's political leadership is helping to massively accelerate their expansion. By 2030, renewable energies are to cover at least 80 percent of Germany's electricity consumption. What seemed very ambitious ten years ago is now within reach. As early as this year, around 60 percent of German electricity will come from renewable energy sources

Unlike in Finland, Germany's expansion of renewable is being subsidized by the state providing economic incentives. In 2023 alone, more than one million new solar systems were installed in Germany.

Germany shut down its last three nuclear power plants on April 15, 2023. The Bundestag had decided to phase out nuclear power in 2011 following the nuclear disaster in Fukushima. Germany is also phasing out coal-fired power generation by the end of 2038 to reduce carbon emissions and **become climate-neutral by 2045 at the latest**. Germany decided to phase out coal in July 2020.

Fossil fuels are to be replaced by electricity by electrifying more and more areas of the economy and society and by replacing fossil fuels such as gas with hydrogen with emissions-free electricity from renewable sources. There are areas of transportation and industry that are currently difficult to electrify. These include steel and cement production as well as air and sea transport. Germany is relying on hydrogen and suitable derivatives. Hydrogen can be used more flexibly as an energy source and is easier to transport. It will play a decisive role in Germany as a substitute for natural gas, oil and coal. Hydrogen is nothing new in industry. Until now, however, it has been produced using fossil fuels.

Germany wants to ensure that a European market for hydrogen is created more quickly. In addition to investment, this requires clear political signals. Germany is therefore providing both funding for infrastructure and clearly formulated targets. The **National Hydrogen Strategy** lays out the German government's goals: The required infrastructure is the so-called hydrogen core network. The details have been finalized since October 2024 and the core network has been approved. The network will have a total pipeline length of more than 9,000 kilometers. 56 percent of the existing natural gas pipelines will be converted to hydrogen for this purpose. The rest will be newly built. The costs are immense: experts estimate they will be almost 19 billion euros. The network s will gradually go into operation by 2032. It will then connect consumption centers with hydrogen production regions.

Germany cannot produce enough hydrogen on its own. The prerequisites, for example for additional wind farms, are lacking. The German government estimates that the total demand for hydrogen and its derivatives will be between 95 and 130 terawatt hours in six years' time. According to estimates, Germany will have to import 50 to 70 percent of this amount. By 2045, Germany's demand for hydrogen may increase more than tenfold compared to 2023. According to government estimates, the import share could thus increase further. This means excellent sales opportunities for international hydrogen producers.

Germany sets out where the hydrogen is to come from in its **hydrogen import strategy**, adopted in summer 2024. It is intended to ensure that investments can be made in hydrogen production in German partner countries and that the infrastructure, for instance, for transport, can be built reliably. The strategy focuses on the Baltic Sea region in particular: "The Baltic Sea region is another important building block for the German hydrogen supply due to the high potential of onshore and offshore wind power as well as the good hydrogen storage potential." The two pipeline projects Baltic Hydrogen Collector and Nordic Baltic Hydrogen Corridor are intended to facilitate the import of hydrogen from the Baltic region.

Both pipelines will connect Germany, Finland and many other Baltic states. Finland is an ideal partner for the whole of Europe and the Baltic states. Finland has set itself the goal of supplying around 10 percent of the hydrogen produced in the EU by 2030. With the help of the pipelines, surplus Finnish hydrogen could be stored in Germany and either reimported to Finland or sold to other countries when needed. This would mean greater security of supply for the whole of Europe. Closer cooperation between Germany and Finland in the hydrogen sector would have the advantage that the Finnish market ramp-up could not only be faster, but above all more voluminous - in line with Finnish potential. Germany as a customer therefore offers Finnish producers the security they need that their hydrogen will find a buyer.

There are already many examples of positive cooperation between Germany and Finland in the energy sector. For example, the Finnish company P2X Solutions installed the first industrial-scale electrolyzer in Finland in February 2024. The machine was supplied by the German company Sunfire. A number of German companies - for example, Energiequelle, ABO Wind, CPC Finland and WPD Finland - have also played a key role in driving the development of the Finnish onshore wind energy sector.



Niklas Becker

Director for Finland, Estonia, Latvia, Lithuania Germany Trade & Invest Germany



GEORG ZACHMANN

Energy in the Baltic Sea region: From Russian dominance to regional integration?

he Baltic Sea is crucial for the energy supply of most bordering countries. Most of the fuel imports of Sweden, Finland, Estonia, Latvia, Lithuania and Poland happen via the Baltic Sea – while Russia organizes a significant share of its oil and (now less) gas exports through the Baltic Sea.

An end to decade-long relations

The decoupling between Russia and the EU, in the aftermath of Russia's brutal aggression against Ukraine, strongly affected the energy supply configuration of all bordering countries. Russia reduced and ultimately stopped **gas** supplies via pipeline to Poland and Germany. A month later, the spectacular Nord Stream pipelines explosion likely ended a four decade-long energy relation with a bang. The four East Baltic states (Finland, Estonia, Latvia, Lithuania) also managed to stop their imports of Russian gas.

The EU embargo on Russian sea-borne crude **oil** (December 2022) and oil products (January 2023) had in terms of pure energy-content the biggest impact – but as the global oil market is relatively fungible, consumers in Sweden, Finland or Denmark barely noticed the switch to other sources. The Druzhba oil pipeline from Russia proved more difficult to replace. It does not fall under EU sanctions and the German claim to now only use it to import Kazakh oil is a bit dubious.

For **electricity**, Finland stopped its limited imports from Russia – that were previously organized via an asynchronous direct link – in May 2022. The three Baltic countries also stopped importing bulk electricity from Russia – but until February 2025 remain synchronized with the Russian power system.

The EU embargo on Russian coal – that dominated EU imports in 2021 – caused substantial reconfiguration. Now, Kazakh coal is exported via the Russian ports in the Baltic Sea.

New links emerging

Replacing Russian fossil fuels with fossil fuels from other sources strengthened the cooperation between EU-countries around the Baltic.

The Lithuanian Klaipėda LNG terminal (2015) as well as the Finish floating LNG terminal Inkoo (2023) now serve as major import points for the entire region. The GIPL-link between Poland and Lithuania opened in May 2022, the Baltic Pipe between Denmark and Poland, as well as the Balticconnector between Estonia and Finland operating since 2020 were crucial to enable such regional flows.

And even Germany and Poland – that find it hard to collaborate trustfully on energy-matters – are enabling the use of the Gdansk oil terminal to supply East German refineries to displace Russian pipeline oil imports.

The decoupling from Russian fossil fuel imports within less than two years —prompted by Russia's brutal aggression against Ukraine is accelerating a shift towards clean fuels over the next two decades. This will see a strong increase in the role of electricity. The high capital cost and low marginal cost of low carbon sources of electricity thereby drastically increase the benefits of coordination and system integration across borders. The upcoming synchronization of the Baltic countries' electricity grids in February 2025 with the continental European

Expert article • 3718

grid is an important step to facilitate such security, competitiveness and sustainability, increasing collaboration.

Important gaps in cooperation remain

The Baltic Sea region has seen a profound reconfiguration of energy flows during the past three years. Close cooperation was very successful in ensuring supply security in the region. But national egoisms and lack of institutionalized coordination hold back on reaping further substantial gains from cooperation.

Several projects to increase cross-border connectivity for **electricity** (DE-SWE, DE-PL, PL-LT) are struggling to gather the necessary support to build a resilient Baltic electricity network. Off-shore wind hubs that could connect most Baltic nations are progressing much more slowly than their counterparts in the North Sea. And capacities available for commercial exchanges remain limited – leading to substantial and inefficient price-differentials.

At the same time, Europe has not yet managed to define a common position on future imports of Russian gas. Especially the lack of a clear German position on the (non-) future of the remaining Nord Stream is disconcerting for its Baltic partners. Moreover, the inability of Germany and Poland to coordinate their only 75 km distant LNG-terminals Świnoujście and Mukran, shows a worrisome lack of trust.

Necessary coordination on national energy system development plans (e.g., the National Energy and Climate Plans could be a useful anchor for consultations) and on crucial market design choices (e.g., capacity mechanisms) is insufficient to rteap the benefits from greater collaboration.

Mistrust on nuclear plans in other countries still seem to overshadow important discussions on pragmatic steps towards more energy-cooperation. The same holds for cooperation on carbon capture and storage infrastructure in the Baltic Sea – at that stage, interested (Poland) and sceptical (Germany, Sweden) countries seem to lack constructive discussion.

Finally, in the new world of hard security threads – as illustrated by the Balticconnector incident in October 2023 - a much tighter cooperation of regional surveillance and response capabilities is urgently needed.

Towards a new Baltic energy cooperation

The speedy decoupling from Russian energy showed the value of regional integration and cooperation. But EU member states around the Baltic are quickly returning to an inward-looking energy policy. This risks to obstruct major projects to jointly reap the vast untapped potential of infrastructure and market integration.

Georg Zachmann

Senior Fellow Bruegel / Helmholtz Zentrum Berlin Belgium / Germany



AXEL MATTERN

German ports are critical infrastructure

Expert article • 3719

he German seaports are far more than just transshipment centres for goods - they are indispensable hubs for the country's energy supply and logistics infrastructure. Within the German port's landscape, the Port of Hamburg is the largest contiguous industrial area in Northern Europe. In an increasingly multipolar world, in which geopolitical tensions and climate change are influencing economic conditions, ports such as Hamburg are increasingly moving to the centre of national and international strategies. This naturally results in challenges and opportunities.

Russia's war of aggression against Ukraine caused Germany to rethink its energy policy. Gas imports from Russia, which had been required and desired up to that point, were stopped. New sources had to be found for the import of gas, which is still needed for Germany's current energy supply. As a result, LNG (liquefied natural gas) terminals were built in many northern German seaports within a very short space of time. They are intended to ensure that the energy demand for gas continues to be covered.

At the same time, advancing climate change requires enormous efforts on the part of countries in order to achieve the global warming target of 1.5 degrees set out in the Paris Agreement. This requires a sustainable transformation of the industry and energy infrastructure. The German government has decided to phase out coal as a fossil fuel by 2038. Many coal-fired power plants have already been decommissioned. As a result, the handling of coal in seaports is declining noticeably.

The future belongs to sustainable energy sources

More sustainable energy sources such as hydrogen and its derivatives are on the rise. The German government calculates a need of more than 350 TWh hydrogen per annum as of 2045. These will have to be imported to a large extent by an industrialised country like Germany. Ports are indispensable for this. The transformation in the bulk goods sector has thus begun. In future, for example, significantly more alternative fuels such as those already mentioned will be handled in the Port of Hamburg.

The Port of Hamburg is a prime example of the transition to a more sustainable energy supply. The city of Hamburg has already adopted a harbour development plan for 2040, which also provides for the sustainable use of energy sources such as hydrogen and its derivates. Part of this plan envisages the construction of an electrolyser to produce hydrogen in the port area. However, a large proportion of this hydrogen will be used by the local industry. Additional transport infrastructure must be created in the Hanseatic city for this purpose. This process is just one aspect of the comprehensive transition that is already in full swing in the port economy and local industry.

While an energy transition in the import of goods is slowly becoming apparent, it is already part of everyday life for many companies in the port industry. For example, the largest container terminal operator, Hamburger Hafen und Logistik AG, has set itself the goal of becoming climateneutral by 2040. This has already been achieved at the Container Terminal Altenwerder. Electrically powered and automated container transporters (AGVs) are used to transport containers between the ocean-going vessel and the storage area, for example. Other terminals are currently in the conversion and expansion phase. Projects for greater sustainability are also underway here in many areas.

The transition to a climate-neutral port area

A great deal is also being invested in wind and solar energy in order to move away from fossil fuels. It is a complex process that is not just focussing on the ports in terms of imports. The seaports are thus becoming central components of a sustainable energy infrastructure and a climate-neutral economy. This will also benefit local industry.

International cooperation

However, the importance of German seaports goes far beyond national supply. Seaports such as the Port of Hamburg will continue to play a key role in international trade, supply chains security and energy security, and not just for Germany. The geographical location of the Port of Hamburg is an excellent starting point, particularly for countries bordering the Baltic Sea as well as for Central and Eastern European countries. For many countries in this region, the port provides crucial access to the global market in order to ship their goods and merchandise worldwide.

A core element for the Port of Hamburg is its trimodal connection whether by water, rail or road. As Europe's largest railway port, there are over 200 train departures and arrivals in Hamburg every day.

Despite these excellent conditions, the Port of Hamburg faces major challenges alongside the other German and European seaports. The complexity of port activities and tasks has grown enormously. Ports are energy hubs, supply the population with goods of all kinds, are critical infrastructure and are an important part of a resilient transport network for Europe.



Axel Mattern

Port of Hamburg Marketing Germany

(c) HHM / Würke



The twilight of German innovation

Expert article • 3720

uppose you walk through a typical German city nowadays. In that case, you will see shiny cars made by Mercedes-Benz or Audi on its streets. When you enter one of the landmark shops, such as Galeria Kaufhof, you will be able to buy pharmaceutical products made by Bayer, lens wipes for your glasses by Carl Zeiss, and tools and electronics by Bosch and Siemens, amongst others. Surrounded by these well-known global brands, you would probably never think that you are not in a dynamic 21st-century economy but in a business museum. But that is what the High Streets and shopping arcades of Germany have come to resemble - museums and shrines to an era of bygone innovativeness. Because all of these brands are more than a century old: Siemens was established in 1847, Bayer in 1863, Galeria Kaufhof in 1879, Bosch in 1886, Audi in 1909 and Mercedez-Benz in 1926. So, one could go on. As authors Erixon and Weigl have pointed out, *"In Germany's DAX 30 index of leading companies, only two were founded after the 1970s."*

Indeed, modern Germany was created at the end of the 19th century during fifty years which was one of the most remarkable periods of innovation ever in world history. Consider, for instance, that in the short space of time between roughly 1850 and the 1920s, the following entrepreneurs/innovators created the following inventions: Albert Ballin, who established the shipping liner and created the world's largest shipping company by 1900; Karl Benz who invented the 4-stroke automobile engine; Melitta Bentz who invented the coffee filter; Robert Bosch, the spark plug; Gottlieb Daimler, the internal combustion engine and the motorcycle; Rudolf Diesel, the diesel engine; Alfred Einhorn, novocaine; Adolf Fick, contact lenses; Carl Gassner, the dry cell battery; Hans Geiger, the Geiger counter; Heinrich Hertz, the antenna; Fritz Hofmann, synthetic rubber; Felix Hoffmann, aspirin; Christian Hülsmeyer, the radar; Alfred Krupp, no-weld railway tyres; Julius Pohlig, the cable car; Wilhelm Röntgen, X-rays; Werner von Siemens, the needle telegraph; and Carl Zeiß, lens manufacturing. The number of world-leading scientists that were active in Germany between 1870 and 1939 include Albert Einstein, Max Planck, Werner Heisenberg, Max Born, Fritz Haber, Otto Hahn, and Lise Meitner. They have us synthetic fertilizers with which to feed the world and nuclear technology with which to destroy it.

The First and Second World Wars ended this innovation and science miracle. Rising from the ashes of the Second World War, not only were German cities built very much where they had historically been according to ancient city plans, but the economy was resurrected around the businesses that grew out of this innovative period. This resurrection process has been described as an "economic miracle" - 1950 - 1970 saw the fastest economic and productivity growth in the country's history: average annual GDP *per capita* growth amounted to 5%. However, after the 1980s, economic and productivity growth slowly stagnated. Economic growth in Germany declined to an average of 2% between 1975 and 1990 and further to 1% between 1990 and 2010. Germany was even labelled the 'Sick Man of Europe' during the latter period by *The Economist*.

And the innovation performance of the late 19th century was never equalled. For example, if one counts the number of inventions and discoveries in Germany over a broad range of fields - including fashion, tourism, appliances and animals in the period 1870 to 1945, and contrasts this with the 1946 to 2020 period, one would see that in virtually all fields Germany was more innovative between 1870 and 1945. The total number of inventions and discoveries from 1946 to 2020 was only 27% of the innovations and discoveries from 1870 to 1945. Only in electronics, sports, toys, and computing did Germany do better or do something similar in the latter period. Patenting by German firms and innovators peaked in the 1970s and has since slowly declined. Not only did the number of patents decline, but the quality as measured by citations to German innovations vs USA innovations: a 2017 study found that already in the 1980s, German patent citations were on average 14% lower than those from the USA, dropping even further to being respectively 30% and 41% lower in the 1990s and 2000s.

Moreover, the top 20 nanotechnology patent applicants have not included a single German firm since 1970. Between 1994 and 2005, Germany registered only 0.11 patents per million inhabitants in cuttingedge biotechnology at the European Patent Office—compared to 6.0 in the UK and 18 in the USA. Between 1901 and 1956, the German university system won 38 Nobel Prizes—and only four between 1956 and 2005.

With the innovativeness of the German economy declining, it has increasingly relied on export competitiveness to maintain some economic growth and maintained this through macro-economic policies, essentially through the Euro, which offers the country a devalued currency (compared to the situation under the Mark). This has been called the "Bazaar economy." It also helped that German firms could, since the 1990s, increasingly offshore production to countries with cheap labour (e.g. China) and that it could access cheap Russian oil and gas to keep its energy bill affordable. In the absence of innovation to provide a competitive edge, the dependence on these growth mechanisms became deeply entrenched. Hence, once globalization started to slow down, once Russian energy became problematic, and with rising interest rates (and inflation) following decades of money printing (aka quantitative easing) by the European Central Bank (ECB), the German economy was in trouble. In 2022, the country suffered its first trade deficit in 30 years. Inflation hit a postwar high of 7,9%. Forests were being cleared to make way for coal mining, and farmers protested on the streets. The Deutsche Bahn, with a 30 billion Euro debt, has been described as permanently in crisis. Articles about the country's de-industrialization started to appear with frequency. Within 24 hours in October 2022, four historical German manufacturing firms declared bankruptcy: Wolff Hoch-und Ingenieurbau, Bodeta, Borgers, and Kappus. In 2023, the 600-year-old Eisenwerk Erla metalworking company went bankrupt and Volkswagen (established in 1937) announced the closure of three factories . Not surprisingly, in November 2024, the German coalition government collapsed.

The causes of Germany's innovation decline are complex - akin to "death by a thousand cuts." It includes the decline in population growth and an ageing population; the lack of tangible incentives for innovation given access to cheap money from the ECB and cheap (er) labour abroad; "defensive" innovation by incumbent big firms that stifle competition and innovative start-up; poor fiscal spending choices, and degradation of the social welfare system. What should also not be forgotten is that after the Second World War, Germany became a vassal of the USA. Yanis Varoufakis relates a conversation with a former USA Chief of Staff of NATO's forces in Europe, who, when asked what is the point of NATO, replied, " It's three-fold" [...] "First, to keep us in Europe. Second, to keep the Russians out. Third, to keep Germany down."



Wim Naudé Visiting Professor of Technology, Innovation and Development RWTH Aachen University Germany

naude@time.rwth-aachen.de



PETER N. BACKÉ

Your next German car will be made in China

Expert article • 3721

he average passenger car with an internal combustion engine has approximately 30,000 component parts. Mass producing such vehicles requires years of hard-earned experience and extremely costly production plants. Barriers to entry into this industry are accordingly high.

More so than their foreign counterparts, German carmakers have long focused on process innovation, i.e., optimizing production processes, leaving it to component manufacturers to provide product innovation. Furthermore, they are the last bastion of the trade unions, ossified bureaucracies paying exceedingly high wages. Production costs are so high that no-frills models often must be sold near cost price, in the hope that sales of spare parts may later generate some profit. The industry's business model still largely relies upon the intercontinental export of premium motor vehicles.

The average fully-electric battery electric vehicle (BEV) has around 3,000 component parts and is easy to make, not least because its core component, the battery, is derived from mobile phone batteries. Hence barriers to entry are low. The quality of a BEV is almost entirely determined by the quality of the battery and that of the vehicle's software. Its production cost greatly depends upon the cost of the battery.

The requirement for any vehicles with internal combustion engines sold in the EU from 2035 onwards exclusively to run on carbon-neutral e-fuels effectively amounts to a sales ban, making BEVs mandatory. Other legislations will follow suit, or have already done so. That does not bode well for Germany's carmakers, who are ill-suited to managing disruptive change. Likewise, Germany is not competitive as a manufacturing country for BEVs. High wages, high energy costs, decaying infrastructure and a staggering regulatory burden constitute a toxic mix. Perhaps most importantly, software development is not one of Germany's strengths. For instance, Volkswagen's IT subsidiary Cariad has had 4,000 people developing "the EV operating system of the future" since 2020, with nothing to show for it so far. By contrast, Tesla currently employs just 200 software engineers.

The ongoing global transition towards BEVs will further shift the balance of power between China and Germany in regard to car production. German carmakers' first forays into the Chinese market in the 1980s were a bonanza, simply shipping off their obsolete production plants to China and continuing to monetize them. Over the years, they relocated more and more production capacity to China, including the hitherto jealously-guarded premium segment. Thus, they became dependent upon China, to a far greater extent than their competitors. At its peak in 2020, the Chinese market accounted for just under 40% of all cars sold by German manufacturers. This figure dropped to 34.3% in 2023.

At the same time, trade flows in the opposite direction increased sharply: China now has a 25% share of the EU market for BEVs, up from only 3% in 2020. That figure includes not only cars produced by the eight Chinese manufacturers currently serving the EU, but also BEVs made in China by German brands.

Said trend is set to continue, because China is highly competitive in this domain. Chinese companies account for 60% of the EV battery market, in which lithium-ion batteries are the current industry standard. China controls one-third of the world's lithium supply and has a market share of 67% in refining it. Furthermore, it boasts innumerable IT experts and conducts more research into next-generation battery technologies than any other nation. Demanding domestic consumers ensure that product quality is up to par. There is predatory competition between the 100+ Chinese BEV makers, keeping prices down. Last but not least, German car component manufacturers, each one a hidden champion in its own market niche and globally competitive, are already supplying the Chinese.

At the time of writing, the EU Commission threatens to impose punitive tariffs on Chinese BEV makers. Such tariffs would hurt German carmakers as well, because their subsidiaries in China receive the same state subsidies as their purely Chinese-owned rivals.

For any longer-term predictions, it is not enough to analyse the interplay of market forces and politics, one must also consider technology. Fully autonomous driving is a few years away at most. More than a handy extra feature, it renders private car ownership obsolete. Why would you wish to own a BEV, regularly recharge it, find parking spaces for it and so forth, when you could have one instantly pick you up and drive you wherever you wish to go? Before long, therefore, major carmakers may become mobility providers, relying on a nexus of 5G, IoT and AI technologies to make a fraction of the extant vehicle fleet do more than is currently possible. China's megacities would be the ideal environment for trialling and perfecting this new mobility paradigm.



Peter N. Backé

Kairos Investment Germany

CEO



NIKOLAUS WERZ

The limits of subnational foreign policy: The case of Mecklenburg-Vorpommern

ccording to the constitution, foreign policy is the responsibility of the federal government. Nevertheless, in the 1990s subnational foreign policy gained in importance in the Federal Republic of Germany. This was particularly the case for the Baltic Sea region, especially as it was seen after the Cold War as a sea of peace and a laboratory of modernity.

After the fall of the Berlin Wall 1989 and the end of the German Democratic Republic (GDR), Mecklenburg-Vorpommern (MV) was added as a new federal state to the unified Federal Republic of Germany. During the period of Cold War, the Baltic coast had been partially militarized. A certain exception was the city of Rostock, where the Baltic Sea Week took place from 1958 to 1975 and an international hotel was built in Warnemünde in cooperation with Swedish companies. This opening took place with a view to the diplomatic recognition of the GDR.

Mecklenburg-Vorpommern, newly founded in 1990, has the longest coastline of all the German federal states, the Baltic Sea and relations with the neighboring states were given a special mention in the state constitution. However, expanding relations proved to be no easy task, as the Nordic and Scandinavian countries were modern civil societies with diverse foreign relations. The territorial state's exports are low; in 2021, MV was in last place in a comparison of the other federal states. Just over half of exports went to EU countries (52%). The most important states in the ranking were: Netherlands, United Kingdom, Sweden, Denmark, Poland, France, etc. The order of imports was as follows: Poland, People's Republic of China, Denmark, Netherlands, Finland, France, etc. Around 30 percent of Mecklenburg-Vorpommern's foreign trade is conducted with countries bordering the Baltic Sea. The Russian Federation appeared only in eighth place.

Geopolitical reasons led to Mecklenburg-Vorpommern's relations with Russia becoming an international issue. Since the start of the Russian war of aggression against Ukraine in 2022, the left-wing coalition in Schwerin has been sharply criticized for Nord Stream 2. The approximately 1,230-kilometre-long natural gas pipeline was financed by Gazprom and European energy companies and was intended to transport gas from Russia via the Baltic Sea and ending in MV. Its construction was controversial, especially as the Polish side had expressed concerns at an early stage. A "climate foundation" was established in 2021 to circumvent the sanctions imposed on Russia following the annexation of Crimea in 2014 and to ensure the completion of the last 160 kilometers. US politicians had threatened to punish companies involved in the final construction. Still, at the time, all parties in the Schwerin state parliament were in favor of the foundation. The "Foundation for Climate and Environmental Protection MV" received 20 million euros from Nord Stream 2. Critics said that Gazprom and German officials had invented a fake climate foundation to get the job done.

Expert article • 3722

Nord Stream pipelines 1 and 2 were blown up in September 2022; a Ukrainian task force is suspected. The current German government remains silent on the matter, while the rising populist and radical parties Alternative für Deutschland (AfD) and Bündnis Sahra Wagenknecht (BSW) are using the incident for their nationalist discourse, because foreign powers have intervened. The parliament of MV has implemented a parliamentary committee of inquiry about the Climate Foundation since mid-2022. For its part, the incumbent center-left coalition reacted to external criticism: at the beginning of June 2022, the Minister President Manuela Schwesig announced the establishment of an "MV Cooperation Council for the Democratic Baltic Sea Region". The MV Baltic Sea Strategy was presented in mid-May 2024, with the participation of speakers from the neighboring states. Members of the actual government declared, that following Putin's war of aggression an "even closer cooperation between the democratic states in the Baltic Sea region" is necessary.

With Russia's coastal presence in the Kaliningrad Oblast and the St. Petersburg region as well as its modernized Baltic Fleet, security aspects are becoming increasingly important. Germany, with the largest NATO and EU navy in the Baltic Sea region, will have to assume regional responsibility. What does this mean for MV? In the new world situation following the Russian war against Ukraine, MV is returning to old patterns in some respects, as several coastal towns were places of arms production until 1989. In June 2022, the Kiel-based armaments group Thyssenkrupp Marine Systems bought the insolvent MV shipyards in Wismar: Warships instead of cruise liners, it is now said.

Is this the end of sub-national foreign policy? First of all, the question arises as to whether Nordstream was really a case of subnational policy. After all, the German government and the major parties, with the exception of the Greens and some deputies of the Liberals and the Christian democrats, were involved. The fact that the project took place in Mecklenburg-Vorpommern was mainly due to its geographical location. There is no doubt, however, that the changed security situation in Europe has limited the scope for the foreign policy activities of the federal states.

Nikolaus Werz

Retired Professor of Comparative Politics University of Rostock Germany

nikolaus.werz@uni-rostock.de





DAVID LÖW-BEER

Bridging regional sustainability gaps

Expert article • 3723

ermany's approach to sustainability is shaped by regional differences, which provides both challenges and opportunities. Germany's decentralized governance means that each of its 16 federal states (Länder) pursues sustainability initiatives tailored to their own priorities and capacities, while remaining aligned with the United Nations' Sustainable Development Goals and Germany's National Sustainable Development Strategy. This article highlights key sustainability challenges and local solutions relevant to many regions in Germany in the fields of energy policy, economic transformation, and social services.

Climate protection and the energy transition: Dealing with local resistance

While most Germans support stronger climate policies and the transition to renewable energies, local opposition to projects like wind farms and transmission grid expansion remains a significant hurdle. Some local communities feel overburdened by an unequal regional distribution, insufficiently involved in decision-making, and unrewarded by developments. In addition, there are fears of disruptions to wildlife, health, or tourism. Several measures have been introduced to address these challenges:

- 1. Wind energy expansion: Federal states are now required to designate 2% of their land area for wind energy by 2032. By declaring the expansion of renewable energy a matter of overriding public interest, projects can proceed more quickly, with fewer opportunities for objections.
- 2. Participatory decision-making: Many participatory processes have been set up to increase local acceptance. An interesting example is the "Forum Energiedialog" in Baden-Württemberg, supporting municipalities in holding neutral, dialogue-based negotiations to resolve energy transition conflicts.
- **3. Financial participation:** In regions like eastern Germany, where non-resident investors have historically profited from wind turbines without providing significant local benefits, new laws require operators to share profits with local communities. These funds help finance local infrastructure projects such as school renovations or urban development, aiming to increase local buy-in.

While these measures have shown some success, progress in other infrastructure areas, such as transport and digitalization, remains slow due to decades of underinvestment and local resistance.

Economic transformation: Global competition meets limited resources

Germany's industrial sector faces immense pressure to decarbonize and stay competitive in an increasingly green global economy. Countries like the U.S. and China are heavily investing in renewable energy and e-mobility, forcing German industries to adapt or risk losing their competitive edge. To support this transition, the state must invest in lowcarbon technologies. However, state investments are limited by Germany's fiscal policy, particularly due to the so-called "debt brake" placing strict limits on public borrowing.

Social services: Growing demand, but staff is short

The demand for social services – especially in the areas of care, childcare, and education – has grown significantly in recent years. However, there is a severe shortage of qualified professionals to meet this demand. Teaching staff shortages are widespread, but wealthier regions benefit from better working conditions and more resources. Regional disparity remains in childcare, especially between former East and West Germany. In the communist GDR, external childcare was more widespread and also today East German states offer more kindergarten places and score better in most aspects of gender equality.

Bridging the gap: A lack of a culture of dialogue

An underlying challenge in addressing sustainability issues is the lack of a robust culture of public dialogue. Political decision-making on contentious issues like climate protection and the energy transition is often viewed as inadequate or insufficiently inclusive. In a pluralistic society with diverse values, political and administrative decisions can face resistance if they appear to lack transparency or broad social acceptance.

To bridge this gap, Germany is increasingly embracing analyticaldeliberative democracy, a model that combines expert analysis with public deliberation. Citizens' councils, where a representative sample of the population discusses key policy issues with expert guidance, have become a key tool in this process. These councils aim for policies that are both scientifically sound and socially acceptable.

Conclusion

Germany's sustainability policies are marked by significant regional variation, driven by differences in economic resources, infrastructure, and local priorities. Overcoming local resistance, economic disparities, and the need for greater investment are crucial challenges moving forward. Fostering a culture of dialogue and participation will be key to ensuring that sustainability policies are not only effective but also widely accepted.



David Löw-Beer

Research Group Leader Democratic Governance and Agency, Research Institute for Sustainability (RIFS) – Helmholtz Centre Potsdam Germany

David.LoewBeer@rifs-potsdam.de



KEVIN BORCHERS

German municipalities for global sustainability

Expert article • 3724

n Germany, the Sustainable Development Goals of the 2030 Agenda are anchored at a national level within the German Sustainability Strategy. The strategy is based on a multi-actor approach which also includes all governmental levels. The Federal Government's aim is for municipalities to increasingly implement the 2030 Agenda from the perspective of global responsibility and to strategically anchor it in local administrative activities.

On behalf of the Federal Ministry for Economic Cooperation and Development, the Service Agency Municipalities in One World (Service Agency for short) empowers and advises municipalities, cities and districts on their work supporting global sustainability both in Germany and in the Global South. As part of this advisory service, the Service Agency takes into account the individual characteristics of the municipalities. It should be emphasised that there is no one way for a municipality to align its actions with global responsibility. What is clear, however, is that city leadership support is essential in establishing structures to ensure that a municipality's actions are aligned with global sustainability over the long term. How this can work is briefly described below.

In order to make a sustainable global commitment, it is important to build awareness of the 2030 Agenda within your own administration and population. By signing the model resolution '2030 Agenda for Sustainable Development: Shaping Sustainability at Municipal Level' of the Association of German Cities and the German Section of the Council of European Municipalities and Regions, German municipalities can commit to sustainable development locally and globally and signal they are taking appropriate measures within their means.

The SDGs, and therefore also development policy commitment in the areas of global responsibility of a municipality, are anchored locally within the framework of municipal sustainability management by means of developing municipal sustainability strategies, action programmes and mission statements. Municipal sustainability strategies provide information on goals and measures, which also reveal, for example, where sustainable administrative action is still lacking. A self-critical analysis of the current situation helps to identify potential for improvement. The sustainability strategies are developed in a cooperative planning process with politicians, administrators and civil society. Implementing a sustainability strategy does not imply any additional work if the processes are skilfully integrated. Sustainability management fundamentally affects the entire municipal administration.

A council resolution is required for drawing up a sustainability strategy. The advantage, once this hurdle has been overcome, is that the strategy then forms part of municipal action in the long term.

Explicit topics, whose measures have a global impact, can be anchored within a sustainability strategy. Fair trade and fair procurement, for example, have an impact both internationally and in the local community. Municipalities can support the objectives of fair trade by purchasing fairly traded products and avoiding goods manufactured using exploitative child labour or in violation of minimum social standards. As public purchasers, municipalities possess huge economic potential. They also play a key role in providing an example of best practice. A further approach is international cooperation on 2030 Agenda topics within the framework of municipal partnerships. Today, municipal partnerships embrace far more than just cultural exchange. They stand for equal dialogue, knowledge transfer and a change of perspective. By working together on the 2030 Agenda, many municipal partners are giving their long-standing relationships a new, future-oriented foundation. Others are establishing new partnerships and seeking to contribute and expand their municipal expertise internationally. The partner municipalities are jointly implementing projects for achieving the Sustainable Development Goals and in this way are making a specific contribution to global sustainability.

Finally, it is important that municipalities and municipal umbrella organisations articulate their development and sustainability policy positions in international forums and use their expertise to contribute to international exchange. This applies, for example, to participation in the High-level Political Forum of the United Nations or the World Urban Forum of UN-Habitat.

In order to successfully implement the 2030 Agenda, full use must be made of the creative scope available to local authorities and their scope of action, and ways must be found to mobilise as many local authorities as possible in order to leverage their potential in terms of development policy. As briefly explained here, well-established structures already exist in Germany for doing this. At the same time, much still needs to be done to realise the full potential of all municipalities.



Kevin Borchers

Head of Department Service Agency Municipalities in One World, Engagement Global Germany

kevin.borchers@engagement-global.de



WOLF BORN

MV steps up its cooperation in the Baltic Sea region

Expert article • 3725

Imost one year ago, on 16th January 2024, the regional government of Mecklenburg-Vorpommern adopted its strategy for cooperation with the democratic Baltic Sea region countries. Thus, the North German state, often called MV for the sake of simplicity, reacted to the fundamentally changed geopolitical situation in the area. With security and energy issues being high on the agenda, long term challenges still require continuous efforts, like climate change, demographic change, digitalization and artificial intelligence, just to mention the most prominent ones.

During the elaboration process, the regional government was supported by the **MV Cooperation Council for the democratic Baltic Sea region** which was established in June 2022 for this purpose. The council, composed of 29 personalities from different fields of expertise like politics, business, science, education and culture, and volunteering, submitted its recommendations in May 2023. Upon this basis, the regional government elaborated the final strategy, coordinated by the Ministry of Science, Culture, Federal and European Affairs MV. The state government's overarching political goal is to work with its partners to develop the Baltic Sea region into a **peaceful, sustainable and innovative model region in Europe**.

The MV Baltic Sea Strategy focuses on political priorities for which joint solutions shall be accelerated.

Three objectives, underpinned by 19 measures are prioritized:

- 1. Strengthen the readiness for cooperation by improving the framework conditions for cooperation, e.g. by bundling cooperation-related resources and information more effectively, by attracting more regional actors for cooperation, and by strengthening intercultural skills in the fields of education, culture, youth and in the wider civil society.
- 2. Protection of the Baltic Sea and preservation of a healthy and livable environment, e.g. by tackling the complex and long-term challenge of dumped ammunition, by developing a bioeconomy strategy as a key for the sustainable use of resources, and by better involving the public in Baltic Sea related reseach and programmes.
- 3. Securing future viability and prosperity by better exploiting the regional growth potential through cooperation, mainly in the fields of renewable energies with MV as the natural starting and landing point in Germany for energy partnerships in the Baltic Sea region or the development of hydrogen related value chains. Further prioritized areas of cooperation are the promotion of foreign trade through the biannual Baltic Sea Business Day in Rostock as the flagship event in MV, the health care sector, digitalization, maritime spatial planning and the promotion of international student mobility.

Even though implementing the strategy is a process under the political guidance of the state government, it aims to build on the **broad commitment of all societal actors in MV**. It relies on numerous and long-standing cooperation formats in the Baltic Sea region, e.g. city twinning and regional partnerships, networks and projects in the fields of science, business, culture and art. New formats and projects will be developed where need be, e.g. in the field of innovative energy technologies.

In the first year since the adoption of the strategy, the **implementation process** has been focused on setting up a communication framework and the coordination mechanisms for the MV Baltic Sea Strategy. The official kick-off event took place on 15th May 2024 in Rostock, where the strategy was presented and discussed with about 200 stakeholders from MV and guests from the Baltic Sea region.

More than 170 regional actors – both experienced and newcomers – have signaled their interest to get involved in cooperation activities. For this purpose, and in the light of the new MV Baltic Sea Strategy, the **"Forum Ostsee MV"**, which has been the regional format of stakeholder involvement in Baltic Sea issues since 2014, will be relaunched in January 2025. In a preparatory workshop, members of the forum have stated that, next to using synergies with other stakeholders in MV, they would also like to use the forum as a tool to better connect with potential partners in the Baltic Sea region, independent from specific funding instruments or specific sectors.

In the years to come, the development of **AI-based tools for the purpose of interregional cooperation** might hopefully offer a new quality of support services for cooperation.

Since its establishment in 1990, the state government of Mecklenburg-Vorpommern and many actors across different levels and sectors have actively sought to establish and to develop ties to partners from the Baltic Sea region. The promotion of Baltic Sea cooperation is even anchored as a state goal in the constitution of MV. With its own regional Baltic Sea strategy, MV has positioned itself even more visibly as an active and attractive partner for a cooperation based on common values and rules.

If you want to know more about the MV Baltic Sea Strategy and are interested to learn more about the region, please reach out to us.

Wolf Born

Head of Section "Baltic Sea Policy and Cooperation" Ministry of Science, Culture, Federal and European Affairs Mecklenburg-Vorpommern, Germany



STEFAN MUSIOLIK

Baltic Sea cooperation made in Northern Germany: The BSSSC chairmanship of Schleswig-Holstein

Expert article • 3726

t the beginning of 2024, Schleswig-Holstein took over the chairmanship of the Baltic Sea States Subregional Cooperation (BSSSC) from West Pomerania for two years. Schleswig-Holstein is thus taking responsibility for Baltic Sea policy in difficult times.

As BSSSC is a voluntary network of regions this shows that taking over the lead in this cooperation is a conviction - as resources and time are - as everywhere - a rare commodity. At the same time it is a great opportunity for a small Northern German Land with a long-standing tradition in Baltic Sea Region cooperation

The BSSSC is a political network of the sub-regions of the Baltic Sea States with the key aim to represent the interests of the Baltic Sea Regions (BSR) towards the national level and the EU institutions and to provide a forum for discussion and exchange with other Baltic Sea actors.

It also opens its network for other BSR organizations to become observers on local and regional level. Furthermore, the network is a strategic partner of the Council of the Baltic Sea States (CBSS) and supports project-related cooperation in the Baltic Sea Region. The BSSSC thus plays an important role in the Baltic Sea Region in helping the region to flourish, politically, economically and culturally.

Schleswig-Holstein was a founding member of the network in 1993 and has been a member of the political board ever since. It has made a significant contribution to shaping the organization and deepening cooperation in the Baltic Sea Region. By taking over the chairmanship at the beginning of 2024, Schleswig-Holstein has a very special responsibility, as the chairmanship is an important driving force in the BSSSC network and plays a key role. The chairperson, Minister for European Affairs Werner Schwarz, is responsible for driving the strategic processes of the network and promoting BSSSC positions towards relevant decision-makers.

Schleswig-Holstein aims at utilizing the BSSSC Annual Conferences under its chairmanship to discuss Baltic Sea policy priorities and activities and make them visible. The aim is to focus the agenda setting of the network on key topics for the region and to equip them with strong political support and extended scope for action.

The key topics on the agenda are pre-delivered by the working groups existing within the BSSSC network such as lobbying for a region-based and fair continuation of cohesion policy after 2027. Our thematic priorities for the BSSSC chairmanship align with the "Kiel Declaration 2030". These include removing old munitions from the Baltic Sea, expanding renewable energy (especially Offshore wind), and improving sustainable transport, with a focus on rail and hydrogen. Digitalization and Artificial Intelligence are key technologies for these initiatives and must be further developed.

To strengthen democracy, BSSSC is a frontrunner in fostering Baltic Sea youth cooperation and aims at enhancing the quality of life by supporting the regional resilience in particular through culture. Two examples may illustrate our concrete activities:

- The development of a green hydrogen economy is subject to two projects run by Schleswig-Holstein: GREATER4H and H2ignite. It was not by chance that these projects contributed with an inspiring workshop for the Annual Conference in September 2024 in Kiel. As part of the GREATER4H project, 14 hydrogen filling stations for heavyduty transport are to be built on the corridor from Hamburg to Oslo. This would be the first corridor of its kind to connect four nation states. In this way, we are making a tangible contribution to reach the climate goals by 2040 and to inspire Baltic Sea cooperation in this important field of action.
- 2. The successful initiative "Baltic Sea Cultural Pearls" was invited to prepare a session at the Kiel Conference and even a cultural evening. We are convinced: The power of culture to connect people, strengthen communities and thus make them more resilient to the challenges of our time needs more awareness. The annual awarding of "Baltic Sea Region Cultural Pearls" - first launched in 2024 - is not only a more easily accessible alternative to the "European Capital of Culture" title. It brings Baltic Sea cooperation closer to the people – which is more important than ever.

With these examples, I want to illustrate: it is a mutual give and take for the Land Schleswig-Holstein. Providing content to the network and receiving support, potential further partners and new ideas for enhanced Baltic Sea Cooperation.

But even more so, for Schleswig-Holstein, Baltic Sea Region politics are the crucial tool for international cooperation, a key identity-building measure beyond the own borders and a sign of commitment to peace and stability in the region. Since the Russian war of aggression against Ukraine, Baltic Sea Region cooperation is above all peace policy. The aim is also to make Baltic Sea cooperation and the opportunities and results more visible to all citizens.

The BSSSC chairmanship is in this context a very welcome opportunity for Schleswig-Holstein to be an active part in shaping the hopefully peaceful and prosperous future of the Baltic Sea Region.



Stefan Musiolik

Secretary General BSSSC & Head of Unit for Baltic Sea Region Affairs Ministry for Agriculture, Rural Areas, European Affairs and Consumer Protection of Land Schleswig-Holstein Germany

stefan.musiolik@mllev.landsh.de



BERND JORKISCH

Germany focuses on the Baltic Sea Region

Expert article • 3727

he European Union identified the Baltic Sea Region as a region for special development back in 2009, when it committed to recognising the region's growing importance and developing a macro-strategy for the region. The EU Strategy for the Baltic Sea Region aims to identify the top-priority issues faced by the region and tackle them with concerted action. Billions have been invested to improve the environment, education, economy, infrastructure and security. The strategy incorporates three main policy aims: 1. Saving the Baltic Sea 2. Connecting the region 3. Increasing prosperity. The unwavering commitment demonstrated by the Baltic Sea states can be described as the path towards the Hanseatic League of the 21st century.

During its one-year presidency of the Council of the Baltic Sea States held until 30 June 2023, Germany focused on the following topics along with ceasing relations with Russia and Belarus in response to the unjustified aggression towards the independent nation of Ukraine: Promoting offshore wind energy, removing dumped munitions and improving youth participation in the Baltic Sea Region. The members of the Council of the Baltic Sea Region codified the need to expand offshore wind energy in the Baltic Sea to enhance security in the Berlin Declaration. One of the objectives is to produce seven times the amount of offshore wind power in the Baltic Sea by 2030. At present, 400,000 tonnes of conventional munition from both world wars lie at the bottom of the Baltic Sea. Dumped munitions in the Baltic Sea present a major environmental risk and finding a solution is only possible in cooperation between the different member states. Germany has already established a programme to salvage old munitions in the North and Baltic Seas with an initial funding amount of EUR 100 million. The German Federal Foreign Office also supports the establishment of the Baltic Sea Region Youth Forum (BSRYF), which develops and organises various forms of youth participation in order to ensure the younger generation is more closely involved in solving the problems faced in the Baltic Sea Region. During Finland's one-year presidency of the Council of the Baltic Sea Region held until 30 June 2024, work continued on the aim of preserving the Baltic Sea in terms of its strategic importance and as a lifeline for its member states.

Fehmarn Belt fixed link – the emergence of a new Hanseatic League

On 3 September 2008, Denmark and Germany signed a treaty for the construction of the Fehmarn Belt fixed link. At almost 18 kilometres in length, the immersed tunnel will connect Scandinavia to the European mainland and strengthen trade in the future. As the largest infrastructure project in Northern Europe, the Fehmarn Belt link will form part of the Trans-European Transport Network (TEN-T) – making it a highly important project for the European Union. Economic development, prosperity in the Baltic Sea Region and connecting people are the primary objectives behind this infrastructural endeavour. In other words, Europe plans to continue growing together. Construction is scheduled for completion in 2029. The Fehmarn Belt fixed link will create a new European axis for the future between the metropolitan areas of Hamburg and Copenhagen/Malmö –

opening the door to new opportunities for positive economic and social development. The Fehmarn Belt tunnel marks the pivotal physical step towards the achievement of the Scandinavian-Mediterranean corridor, which has long been the aspiration of the European Union.

North German initiatives for Baltic Sea partnership

In their capacity as logistics hubs for the Baltic Sea with their busy ports, two northern German states have formulated strategies for partnership among the Baltic Sea member states. Minister-President of Schleswig-Holstein Daniel Günther announced a new focus for Baltic Sea policy in his government declaration 'Schleswig-Holstein's prospects for prosperity, climate protection and innovation in the Baltic Sea region of opportunity' on 28 October 2021. Schleswig-Holstein considers the Baltic Sea Region to be a region of opportunity. Economic partnership, climate protection, marine conservation, artificial intelligence and cooperation in the scientific and cultural arenas are all items on the agenda. The Kiel Declaration for a 'Sustainable and prosperous Baltic Sea Region by 2030' was adopted at the international Baltic Sea Region Future Forum held on 26 August 2022 in Kiel with 120 experts from the Baltic Sea states in attendance. In Mecklenburg-Vorpommern, Minister-President Manuela Schwesig welcomed the completion of an extensive summary report compiled by the Cooperation Council for the Democratic Baltic Sea Region on 25 May 2023, which contained recommended actions for Mecklenburg-Vorpommern's new Baltic Sea strategy. Peace, democracy, sustainability, environmental and climate protection were given just as much emphasis as future viability, prosperity and health.

The Baltic Sea Region is Europe's region of the future and a pioneer in the green transformation!



Bernd Jorkisch

Honorary Consul of the Republic of Finland in Lübeck Doyen Consular Corps Schleswig-Holstein Germany





Investing in Baltic biodiversity – more urgent than ever!

Expert article • 3728

or half a century, the Baltic Sea "enjoyed" the questionable reputation of being the most polluted sea of our globe. Since then, grace to the efforts of states, scientists, and the civil society of the Baltic Sea countries, many joint efforts were made to bend the curve of ecological decline. A major driver and change agent was the creation and 50 years of support for the Helsinki Convention, the first global environmental agreement for a shared regional sea basin. The Helsinki Commission and its work has deleted many major pollution hot spots from the map and brought us back some iconic species like the grey seals or the white-tailed eagles. And it has changed the image of our sea towards being a role model and forerunner for high environmental standards in Europe and beyond. Examples are globally binding standards for ship traffic (Particular Sensitive Sea Area – PSSA, Nitrogen, and sulphur Emission Control Area – NECA, SECA) and Helcom network of Baltic Sea Protected Areas.

All this was important and necessary, but unfortunately this is not enough: the overarching effects of excessive nutrient overload through agricultural practices and wastewater have dramatically reduced the self-cleaning capacity of large coastal sea areas and led to dead zones in many parts of the sea floors. Climate change triggered the depletion of our fish stocks such as that of cod and herring which depend on oxygen-rich cold water. As a result of global warming the sea water temperature as well as the sea level rose faster and higher than in most other seas on our globe.

Due to the hydraulic constraints of the sea with the narrow Danish Straits as a bottleneck, the water exchange with North Sea and Atlantic Ocean occurs only once every 35 years. This demands from us a longterm perspective if we want to observe and measure the recovery of biodiversity and good environmental status of our sea. New challenges are emerging, that need as much vigilance as the newly resharpened focus on military threats in our region. The risk of military activities in the sea and that of sabotage to infrastructure or to ships carrying hazardous substances has become real.

Disregard of so far jointly agreed international ship security standards by deploying fleets of substandard oil tankers brings the shipping risks of the 1990s back to the agenda of 2025.

The deployment of giant offshore wind parks wherever possible further limits preserving the sea areas needed for securing the recovery of a good environmental status of the Baltic Sea. Despite high budgets for compensation measures for minimizing human impacts from industrial or infrastructure projects hardly any significant effect on the marine habitats can be observed.

Today we desperately need a revival of the joint Baltic Sea spirit to defend and sharpen our toolset for a healthy Baltic Sea. The EU has somewhat paved the way with Habitat and Marine strategy framework Directives and recently with the restoration law that demands 30% of land and sea areas to be restored to a natural status and the decade of restoration. On the other hand, in Germany hard-fought nature conservation standards are easily being sacrificed for seemingly more important and urgent projects, e.g. the construction of LNG terminals or placement of military infrastructure.

To make the green deal reality, a lot of political will and resources are needed. Part of the effort should also be to set aside the necessary sea space in the frame of Maritime Spatial Planning for establishing effective marine protected areas and blue exchange corridors to connect these sanctuaries such as migration corridors or spawning areas.

How much effort is needed to make the restoration goals tangible reality may be illustrated by the example of our Baltic Sea Foundation (OSTSEESTIFTUNG) in Germany: the foundation together with scientific institutes of the region has just started a 10-year project to restore former coastal peatlands of around 1.000 hectares, with a finance volume of 30 million Euros. Just to stop the CO2 emission from the drained (mainly agricultural) peatlands in Germany with their high CO2 emissions by 2050 would need at least 10.000 hectares to be rewetted every of the 25 years remaining until 2050. The outgoing German Federal Government had acknowledged that the restoration of peatlands, especially in coastal areas, can contribute substantially to reduce emissions of the greenhouse gas CO2. Consequently, the rewetting of peatlands plays an important role in the "Action Programme for nature-based climate protection" which has a budget of 3.5 billion Euros. Hands-on measures to abate climate change effects like the aforementioned and securing the needed areas for effective marine biodiversity conservation should further be in the top of the to-do-list for German and Baltic governments.

Jochen Lamp

Head of the Board OSTSEESTIFTUNG, German Baltic Sea Foundation Germany

Georg Nikelski

CEO and Board Member OSTSEESTIFTUNG, German Baltic Sea Foundation Germany

nikelski@ostseestiftung.de



STEFANIE WODRIG

Hamburg's future with the Baltic Sea region

Expert article • 3729

hy is Hamburg so actively participating in Baltic Sea cooperation, even without being located directly on the Baltic Sea? Indeed: Hamburg's parliament - the Bürgerschaft - is an active member of the Baltic Sea Parliamentary Conference and the Southern Baltic Sea Parliamentary Forum. The city is not only a member of the Union of the Baltic Cities but is also involved in shaping the EU Strategy for the Baltic Sea Region by implementing the Baltic Sea Strategy Point and has long been responsible for co-coordinating the policy area of education. Through the INTERREG Baltic Sea program, numerous actors from Hamburg are actively shaping multilateral Baltic Sea cooperation by working together on common solutions for shared challenges (such as Hamburg administration, port of Hamburg, scientific institutions, civil society, enterprises etc). Hamburg is also a member of the STRING network, which includes cities and regions along the Hamburg-Oslo corridor. In this short article, I get to the bottom of the question of why the Baltic Sea.

How Hamburg is part of the Baltic Sea region

Even though the Elbe, on which Hamburg is situated, flows towards the North Sea and takes most ships leaving the port of Hamburg with it, Hamburg would be inconceivable without the Baltic Sea region. The Hanseatic city, which proudly bears this past in its name (the official name is the Free and Hanseatic City of Hamburg), was an early interface between the Baltic and North Seas. Before Hamburg's great fire in 1842, which destroyed a large part of the city center, these Hanseatic traces were very visible: the city also resembled its partners Lübeck, Riga or Tallinn aesthetically. During the Cold War, this city suffered greatly from the fact that it was no longer possible to maintain links with eastern partners in the Baltic Sea region. In the middle of the ice-cold war, Hamburg entered into a city partnership with Leningrad against the wishes of the Bonn government. That was in 1957, a little more than a decade after the Leningrad blockade. When the Iron Curtain fell, the port of Hamburg flourished. Even today, Hamburg is still a gateway to the Baltic Sea region: if you want to go north, you first have to cross the Elbe, best in or near Hamburg. And many of the major container lines still end in Hamburg, the third largest port in the EU. From here, the goods are loaded onto smaller ships and transported via the Kiel Canal to the Baltic Sea ports. Even without a direct hydrological connection, close social, economic and political ties have existed for centuries.

Hamburg's future with the Baltic Sea region

But the most interesting thing is that Hamburg and the Baltic Sea region will move even closer together. In a couple of years, you can take the train through the Fehmarnbelt tunnel to reach the Öresund even faster. If you look at the map from above, Copenhagen is about as far away from Hamburg as Berlin. Berlin can already be reached in under two hours, but the train to Copenhagen currently takes around five hours. The tunnel under the Fehmarnbelt promises to shorten the journey time considerably. The Öresund will therefore soon be very close. Not surprising, the Hamburg government was an early supporter of the construction of a tunnel through the Fehmarnbelt.

It is fair to say that Hamburg's future will also depend on its relations with the Baltic Sea region: On the climate-neutral energy that comes from the north as well as on the innovative strength that the EU Baltic Sea states have. Hamburg, one of sixteen federal states in Germany's federal system, has ambitious climate targets, but also a lot of industry and a huge port to decarbonize. The port area is also one of Europe's largest industrial areas. For a few years now, the buzzword has been hydrogen. Although hydrogen is also to be produced locally, it is clear to everyone that Germany will have to import a lot of green hydrogen. The North Sea and Baltic Sea will therefore become production centers for this green hydrogen.

Hamburg's science is globally oriented, but being embedded in a strong regional innovation landscape makes Hamburg as a location even more attractive. Many of the EU's Baltic Sea states are pioneers of innovation. This can be seen, for example, in the degree of digitalization of public administration, from which Hamburg can learn something. The regular exchange with our partners in the Baltic Sea region means that Hamburg is constantly questioning itself and its practices. If a solution has proved successful elsewhere, this example can provide important impetus for change in Hamburg. The same applies in reverse, of course.

How things could continue

A lot has changed in the Baltic Sea region since the beginning of 2022. Peace has disappeared. Much is reminiscent of a new edition of the Cold War. The extent to which this happens is beyond the control of a city like Hamburg. However, the question of how the EU's Baltic Sea states can stick together in this difficult situation and still address the challenges facing everyone is a different matter. In this sense, Hamburg can contribute to a resilient Baltic Sea region with its dynamism and size.



Stefanie Wodrig Head

Unit Baltic Sea cooperation City of Hamburg, Germany



Critical junctures and changing identity of the Baltic Sea Region

Expert article • 3730

he Baltic Sea region (BSR), a seemingly peaceful space comprising diverse nations, has profoundly transformed in recent years. It is no longer just a geographic area where the sea in the middle plays a pivotal role in increasing its cohesion, but it has become a dynamic geopolitical scene reshaped by critical junctures. This essay will explore this evolution, tracing the shift from a post-Cold War soft security model and identity characterised by inclusive regionalism to a more assertive focus on collective defence and integration with the West resulting mainly from Russia's aggressive actions in Ukraine.

The era of soft security and inclusive regionalism (1990 - 2014

In the period following the collapse of the Soviet Union, a new "soft security" approach was adopted by the state and non-state actors in the emerging BSR. This paradigm favoured cooperation over confrontation, emphasised dialogue and transnational collaboration, and pursued the building of a common identity among various stakeholders with the inclusion of Russia. The Council of the Baltic Sea States (CBSS), established in 1992, became a cornerstone of this endeavour. Its inclusive nature, accepting Russia as an equal member, reflected a belief in the possibility of managing regional challenges - environmental protection, economic development and even security - through shared responsibility based on multilateral dialogue.

During this period, we have witnessed the flourishing of various cross-border institutions, civil society organisations and expert networks, contributing to a dense web of interactions and constructing a distinctively new type of regional identification pattern. The success of BSR institutionalisation has often been ascribed to the emergence of "new regionalism" both as a social practice and a theoretical model that emphasised the power of shared narratives and discursive frameworks in shaping regional integration. In this sense, the BSR became a beacon of successful post-Cold War regionalism, often cited as a model for other regions to follow. However, the relative stability masked underlying tensions, mainly arising from Russia's sustained geopolitical ambitions.

The Crimea annexation and the erosion of trust (2014)

The year 2014 marked a turning point and, eventually, a critical juncture. Russia's annexation of Crimea shattered the carefully constructed narrative of partnership and collaboration based on trust. This blatant violation of international law, although happening in Ukraine, sent shockwaves throughout the BSR, exposing the inherent fragility of a security architecture based on cooperation with a revisionist power. The annexation also signalled a shift in Russia's approach to its neighbours, from subtle, clandestine influence and hybrid warfare tactics to an outright military operation. Reaction to the annexation varied, but unease and uncertainty were palpable. The CBSS tried to maintain dialogue, but the inherent distrust created by annexation undermined its effectiveness. The period witnessed a growing divergence between Russia and its neighbours, marked by rising military spending, enhanced border security and a cautious reassessment of security partnerships. While the soft security paradigm has persisted, its trust-based foundation was irreversibly damaged.

The invasion of Ukraine and accelerating shift toward collective defence (2022-present)

Russia's invasion of Ukraine in 2022 marked a catastrophic critical juncture, definitively ending the era of soft security in the BSR. The invasion revealed the true extent of Russia's revisionist intentions and its disregard for international norms and agreements. The act of aggression was widely condemned, marking a clear punctuation of the power equilibrium in the regional security landscape.

The Russian invasion ushered in a rapid reassessment of security priorities in other states in the region. The Baltic states and Poland, already earlier suspicious of Russia, doubled their commitment to NATO, while Finland and Sweden, previously maintaining a policy of military non-alignment, quickly opted for NATO membership. The decision marked a spectacular shift in these states' national security strategies, though it was prompted by a deep recognition of the imminent threat posed by Russia and the need for security guarantees offered by NATO membership. While ultimately successful, this process encountered obstacles, particularly from Turkey and Hungary, which highlighted the complexity of collective security decisions that have consequences beyond the BSR framework.

The invasion also had a direct impact on the CBSS. Russia's expulsion from the organisation ultimately solidified its transformation from a regional platform to a forum for coordinated responses to Russian aggression. The focus shifted decisively to security issues, strengthening cooperation in areas such as civil defence and preparedness, enhancing societal resilience and protecting critical infrastructure. In these domains, due to its experience in coping with Russian aggression, Ukraine has become a valuable partner in several projects that previously were realised exclusively by the BSR states.

A new regional identity: Western integration and collective security

The BSR is forging a new identity rooted in collective security and close ties to the West. NATO's enlargement with Finland and Sweden has geopolitical consequences and marks a significant ideological shift, reinforcing the region's Western orientation and commitment to



Expert article • 3730

a rules-based international order. This new identity includes a greater emphasis on military capabilities and a more assertive stance against Russian aggression.

However, this new arrangement does not diminish the role of regional cooperation. While the focus has shifted to security, there is still a strong need to cooperate on common challenges such as environmental protection, economic development or energy security. While strongly linked to NATO and the West, the BSR states are well aware of their positionality and remaining common challenges that require continued dialogue and cooperation, albeit in a radically changed geopolitical environment. Pursuing sustainable regional development and mitigating transnational threats will remain key in shaping the future regional identity, even if building capacity for resilience and defence cooperation with NATO takes precedence.

Conclusion: A region transformed

The Baltic Sea region was irreversibly transformed at critical moments in 2014 and 2022. The era of soft security, characterised by inclusive regionalism and the hope of cooperation with Russia, ended. What has emerged is a region firmly committed to collective defence and closer integration with the West. While the long-term implications of this shift are not yet obvious, it can be asserted that Russia's aggressive actions have fundamentally redefined the BSR identity and security architecture. The regional futures will likely require a balancing act between the need for a solid collective defence and a continued pursuit of regional cooperation on shared challenges taking place among the complexities of a changing geopolitical landscape.

The views expressed in this article are those of the author and do not necessarily reflect the opinions or positions of the Council of the Baltic Sea States (CBSS), its officials or its Member States.



Damian Szacawa

Ph.D., Assistant Professor Institute of International Relations, Maria Curie-Skłodowska University Poland

Senior Analyst Department of the Baltics, Institute of Central Europe Poland

damian.szacawa@mail.umcs.pl

Kazimierz Musiał

Ph.D., Senior Adviser for Priority Area Regional Identity, Council of the Baltic Sea States Secretariat Sweden

kazimierz.musial@cbss.org



OLIVER ZIELINSKI

Baltic Sea research: From understanding to perspectives

Expert article • 3731

he Baltic Sea plays a crucial role both as an ecosystem and for human well-being. As one of the most dynamic and sensitive coastal seas worldwide, it supports a rich array of marine species and provides essential ecosystem services, such as nutrient cycling, carbon sequestration, and critical habitats for various organisms. The Baltic Sea also significantly influences regional climate patterns, acting as a heat and carbon sink, and affecting local weather conditions. However, the Baltic faces growing threats from pollution, habitat degradation, eutrophication, and the impacts of climate change, including rising sea levels and warming waters. Research on the Baltic Sea is vital to understanding these complex challenges, protecting its ecosystems, and managing resources sustainably.

The Leibniz Institute for Baltic Sea Research Warnemünde (IOW) is a marine research institute founded in 1992 with a focus on coastal and marginal seas. It is a member of the Leibniz Association and is responsible for environmental monitoring in the German Exclusive Economic Zone (EEZ) of the Baltic Sea on behalf of the Federal Republic of Germany, fulfilling commitments under the Helsinki Convention. Through its marine research, IOW serves as a bridge between Western and Eastern Europe and is an important partner for other Baltic Sea states in joint project planning. IOW conducts research on the functioning of marine ecosystems, with a special emphasis on the Baltic Sea as a model system. The research aims to provide new insights into the coupling and interactions between coastal seas, land, and the atmosphere, focusing on past, present, and future dynamics. The results will contribute to the achievement of the Sustainable Development Goals (SDGs) in general and the Baltic Sea Action Plan (BSAP) in particular. Key research infrastructures include the research vessel Elisabeth Mann Borgese, various measurement stations in the Baltic Sea, laboratory and measurement equipment, and research databases.

On January 1, 2024, the new ten-year research program, Perspectives of Coastal Seas, was launched. The structure of the new program includes three interdisciplinary research areas, the full integration of shallow water research into these areas, the consolidation of marine technology and monitoring activities into a marine observation unit, and the interdisciplinary format of the Baltic Challenges. The new research program reflects a transformative approach to Baltic Sea research, shifting from traditional studies toward a more integrated, forward-looking framework that combines scientific understanding with actionable perspectives. Implementing this program, the institute seeks to address both fundamental scientific questions and practical challenges facing the region, with a particular focus on the shallow water zones—an area between the coastline and a water depth of approx. 20 meters that accounts for 32% of the Baltic Sea. This region is crucial for understanding the dynamic interactions between land and sea but has historically been difficult to study due to its complex and rapidly changing conditions.

The institutes program is structured across three research areas: Key Processes Across Scales, Coastal Seas in Transition, and Emerging Technologies. The latter includes the use of advanced methods to study fundamental processes, new technologies for metrological recording, and the integration of these findings into high-resolution models. IOW seeks to harness the potential of digital technologies and data science. A key ambition is the development of a Digital Twin of the Baltic Sea, a virtual model that integrates diverse observation systems, real-time data, and intelligent analysis to create comprehensive, multi-dimensional representations of the Baltic's marine environment. This Digital Twin would not only enhance scientific understanding but also support decision-making processes by providing science-based scenarios for stakeholders and policymakers. The new research program also expands its commitment to dialogue, societal engagement and impact orientation. New communication and participation platforms will invite the involvement of citizens and stakeholders in the research process, enabling them to contribute to the creation, realization, and evaluation of scientific projects. This co-design or participatory approach, through initiatives like citizen science and realworld laboratories, reflects the growing importance of inclusive research models that align with societal needs and priorities.

Overall, IOW's new research program on the Baltic Sea is marked by its holistic vision: to provide actionable insights through an integrated understanding of coastal and marine processes, innovative technologies, and broad stakeholder engagement. It aims not only to deepen scientific knowledge but also to translate that knowledge into perspectives and solutions that can help address regional and global environmental challenges.



Oliver Zielinski Professor, Dr. rer. nat., Director Leibniz Institute for Baltic Sea Research Warnemünde (IOW) Germany



The Arctic – a challenge for Berlin

Expert article • 3732

longside other strategic documents, the German government published new guidelines for German Arctic policy in September 2024, following a lengthy interministerial coordination process¹. However, while the document sets out many appropriate goals, it remains a paper exercise, offering few specifics on how these objectives will be achieved beyond general statements of interest and support. On the contrary, all statements regarding planned measures are subject to funding reservations. This high level of ambition does not provide any predictability for partners and allies.

As a continental middle power, Germany has a particular interest in reliable international security, collective crisis management and conflict prevention. This also applies to the Arctic region. Since 1998, Germany has been an observer state in the Arctic Council and, alongside other European observer states such as France and the United Kingdom, can also play a role as an Arctic security stakeholder. Peace and security are increasingly challenged by the strategic rivalry between the major powers, the US and China, and are further jeopardised by Russia's neo-imperialist war policy. This assumption is also reflected in the new German Arctic policy guidelines, which state at the beginning "Russia's war of aggression against Ukraine has fundamentally changed the geopolitical environment for Germany's Arctic policy". The German government therefore intends to "play an active role in security policy in order to support its NATO allies and EU partners in the region".

As the world's third largest economic power and one of the largest consumers of raw materials, Germany conducts most of its foreign trade by sea. Due to this maritime dependency, the German Navy has a special responsibility for the protection of coastal waters and adjacent sea areas, as well as sea lines of communication. For now, the Arctic sea routes – Northern Sea Route (NSR), Transpolar Route and Northwest Passage – remain ice-covered for much of the year, making them difficult for commercial vessels to navigate and unsuitable for continuous maritime traffic. However, this could change and Arctic sea routes would then offer a faster and more cost-effective connection between the Atlantic and Pacific Oceans and thus between Asia and Europe as well as North America.

In its Arctic Strategy released in July 2024, the Pentagon projected an ice-free Arctic summer as early as 2030. Nevertheless, this does not mean that smooth, reliable freight traffic will be possible in the Arctic Ocean by the 2030s. Chinese container ships navigating the Russian-controlled NSR are better understood as a propaganda-driven endorsement for Russia's war policies than as evidence of the route's near-term commercial viability (especially since China remains cautious about investing in the maritime infrastructure of Russia's Arctic zone, which would be essential for regular shipping). On the other hand, future port projects in Iceland, Greenland and Norway are showing increasingly promising prospects. The Arctic's resources are also gaining in importance. 25 of the 34 raw materials classified by the European Commission as strategically important are found in Greenland. In November 2023, the European Union and Greenland therefore established a strategic raw materials partnership to support the development of projects and to build the needed infrastructure through the Global Gateway Initiative.

The guidelines state that "the importance of the Arctic to Germany has continued to grow during the last few years" and one can add that

the importance will continue to grow. This assessment is driven not only by geoeconomics but also by geopolitics, particularly due to the growing involvement of the People's Republic of China in the Arctic. The cooperation agreed upon in April 2023 in Murmansk between the Chinese Coast Guard and the Russian Border Guard in the NSR is a signal; in October 2024, the first joint patrol took place. This first operation in the Arctic Ocean "effectively expanded the scope of the Coast Guard's navigation at sea, thoroughly tested the vessels' ability to carry out missions in unfamiliar waters, and provided strong support for active participation in international and regional ocean governance," the Chinese Coast Guard explained in a post on the media platform Weibo². As Chinese ships increasingly use the NSR, it seems to be evolving into an international waterway. Does that mean it is open to others as well? In any case, China is planning to further increase its Arctic ambitions. This became evident when three icebreakers (Xuelong 2, Ji Di and Zhong Shan Da Xue Ji Di) were simultaneously present in the Arctic in July 2024. The construction of another heavy icebreaker should enable China to have a permanent presence throughout the Arctic.

Should the German government now build its own icebreakers? At the very least, German polar research will need a new research icebreaker in the next few years to replace the *Polarstern*. Without it, the MOSAiC research project (Multidisciplinary Drifting Observatory for the Study of Arctic Climate) would not have been possible in 2019-20. However, additional support of Russian icebreakers was still required at the time, which can no longer be relied upon. Arctic research and Europe's security have suffered lasting damage as a result of Russia's war of aggression. The priority now is to rebuild national military capabilities for homeland and alliance defense and to increase conventional deterrence. Following the temporary deployment of US long-range missiles (SM-6 missiles, Tomahawk cruise missiles, and hypersonic weapons), new long-range missiles developed in Europe must be stationed. The Arctic poses a challenge to Berlin because, in the future, security will also need to be more strongly ensured along NATO's northern flank (and you can't secure the northern flank without the eastern flank in the wider Baltic Sea region). This includes deterrence through presence, such as military exercises, as well as investments in ships like F126 frigates, which are capable of operating in waters with light ice formation, and closer cooperation with allied Arctic states like Denmark, Finland and Norway. Expanding the cooperation with Norway in submarine construction (U212CD) to other countries, such as Canada, is also conceivable.



Michael Paul

Senior Fellow German Institute for International and Security Affairs (SWP) Germany

Director Maritime Security Dialogue, German Institute for International and Security Affairs (SWP) Germany

China 's Coast Guard quoted from Astri Edvardsen, "China Coast Guard on First Patrol in the Arctic with Russia", in: High North News, 4.10.2024, https://www. highnorthnews.com/en/chinas-coast-guard-first-patrol-arctic-russia



The Federal Government, Germany's Arctic Policy Guidelines. Germany and the ArcticinthecontextoftheclimatecrisisandtheZeitenwende,Berlin,September2024, https://www.auswaertiges-amt.de/blob/¬2676060/-5496910022404f7cf68049 f1b10e4d5a/arktis-leitlinien-data.pdf 56

FRANZISKA KAPTEINA

Cultural and creative industries in Germany and beyond

Expert article • 3733

s one of the coordinators of the Policy Area Culture of the EU Strategy for the Baltic Sea Region (EUSBSR), I often encounter very narrow conceptions of what exactly culture is and what it can be or do. In particular, the roles and functionalities that culture and creativity fulfil in all areas of our society are underestimated. This is also or rather especially true for the economic sector, where the importance of the cultural and creative industries (CCIs) continues to be overlooked more often than not. Covering a wide range of subindustries from music and films to books as well as various forms of art and design, their common denominator is that their economic potential stems from the generation and exploitation of intellectual property. Being predominantly profit-oriented, CCIs mostly produce or disseminate cultural or creative products and services. With a growing demand for digital content, CCIs play an important role in the digital transformation and are at the forefront of many new developments.

The core of CCI is made up by individual creativity, skills and "out of the box" thinking with approaches that empathetically focus on people. This carries over and drives the innovation and creativity in other areas and industries, which is especially important in an ever-competitive economic environment always in search for something new. Having a strong CCS is therefore crucial when it comes to ensuring the constant development of our societies and economies. According to the latest Monitoring Report, there were more than 1.2 million people working in the cultural and creative industries (as their main occupation), of which 258,000 were freelancers and commercial entrepreneurs and 976,977 employees subject to social-security contributions. The total number of people working in the industry, including those working in the sector as a sideline occupation, was higher than 1.8 million.

Structurally, the German cultural and creative sector (CCS) is characterized by small and micro enterprises. This makes it vulnerable in certain aspects. To remain internationally competitive, the sector has to become more resilient and small cultural businesses and freelance artists need better economic frameworks to work in.

In 2007, the German government therefore launched an initiative on CCI that aims to give CCIs the tools they need to establish themselves as an independent sector and withstand competitive pressure. It additionally initiated a network that is open to all players and aims to disseminate information about possible sources of funding and support start-ups in the sector. Furthermore, the 2016 established federal government's competence centre for CCIs has been promoting cooperation between the CCS and other sectors. Highlighting the importance of CCIs as drivers of innovation, the centre promotes the innovation potential of the CCI as an independent sector and operates networking platforms.

At the same time, German actors also have been active at the transnational level: In 2013, Schleswig-Holstein took on the role as one of the Policy Area Culture coordinator. Since then, constant efforts have been made to promote and visualize the German and Baltic Sea Region (BSR) CCIs. The 2021 Action plan of the EUSBSR includes the promotion of the BSR CCIs and the encouragement of creative entrepreneurship as one

of the actions of its Policy Area Culture. Recognizing the role of the CCS as a driver of innovation for the entire economy, the aim is to strengthen the competitiveness of the CCS of the region through macro-regional cooperation.

The approach especially highlights the importance of capacity building measures of CCS start-ups. As a result, the current Interreg BSR programme period already funds four CCI-centred projects across different sectors, with two of them being led by German partners. These two core-projects focus on the skill training and guidance for the music industry (MI-RAP) and a support ecosystem for gaming developers and entrepreneurs (BSG-Go) respectively. Along other transnational projects, they showcase the importance of the development of resilient support systems and the resulting built-up of skills, especially business-related ones. The CCS heavily relies on individuals and their creativity and skills, which makes it extremely dynamic but also vulnerable. This vulnerability can be significantly reduced by more secure structures and supporting frameworks. Besides their innovative potential, the social dimension of the CCI is equally relevant and CCIs can even be seen as crucial in driving sustainable change in communities. Projects such as Creative Circular Cities and CCI4Change show how the CCS and its CCIs can promote sustainable behaviour. The past project Creative Ports, led by the German Goethe Institute also contributed to building up transnational networking between the CCIs in the BSR and resulted in the establishment of the CCI contact desk in Tallinn.

In essence, the German approach tries to strengthen CCIs by not only addressing the vulnerabilities of the sector, but also by promoting and highlighting its strengths and significance. At the same time the German CCS is facing the challenge to stay internationally competitive. Transnational cooperation within the EU can help to share the creative potential across countries and contribute to a faster and more coherent economic development. Pooling and complementing resources and joint marketing initiatives are suitable means to increase international visibility. In this context, networks and contact points both at the national and transnational level are also crucial to build up representative momentum and to profit from the mutual exchange.

Franziska Kapteina

Policy Area Culture coordinator of the EUSBSR Ministry of Agriculture, Rural Areas, European Affairs and Consumer Protection of Land Schleswig-Holstein Germany

Franziska.Kapteina@mllev.landsh.de



IRENE BARK

Building bridges through cultural collaboration

Expert article • 3734

inland and Germany share a long history of cultural exchange that has spanned the arts, academia, and civic engagement, and created bridges between the two countries. Cultural initiatives and exchange between Finland and Germany help build resilience within the society and support core democratic principles like freedom of expression, inclusivity, and diversity.

As the globally active cultural institution of the Federal Republic of Germany, the Goethe-Institut Finnland promotes and supports cultural exchange, dialogue based on trust, and reflection on diverse perspectives in an international context. For over 60 years, since the opening of the first Finnish Goethe-Institut in Tampere in 1961, followed by the institute in Helsinki in 1963, the institute has played an essential role in fostering Finnish-German cooperation. Through its programs, the Goethe-Institut Finnland promotes both cultural exchange and the learning and teaching of the German language. Working closely with Finnish and international organizations, it encourages discussion around global themes and challenges, promoting transparency, non-discrimination, and environmental and social sustainability.

Restitution and cultural heritage have recently become relevant topics in Finnish-German cultural dialogue, as both countries deal with questions of historical legacies and try to develop ethical approaches to cultural heritage. The Goethe-Institut Finnland collaborates with museums, historians, and local communities to explore the complex relationship between heritage and identity through discussions and exhibitions. This dialogue also addresses the responsibility of institutions to repatriate cultural property and recognize the cultural rights of indigenous communities.

Moreover, the role of artificial intelligence (AI) in science, society, education, and culture is a central theme within the Goethe-Institut Finnland's cultural work. The Goethe-Institut explores complex intersections of AI, ethics, and democracy through panel discussions, workshops, and international projects in collaboration with local and international partners. Questions of the influence of AI on information dissemination and bias also come under scrutiny, including whether ethical principles can truly be integrated into algorithms and how impartial machine translations can be. Together with experts from Finland, Germany, and other European countries, the Goethe-Institut provides a platform for public reflection on these issues, emphasising the need for responsible and inclusive AI development.

Furthermore, the Goethe-Institut is committed to promoting sustainability, with a focus on the United Nations' Sustainable Development Goals. Through panel discussions, residencies, and workshops that explore complex questions related to ecology and art, the Goethe-Institut Finnland, along with partners from various fields, promotes cross-disciplinary dialogue and contributes actively to a more sustainable climate foreign policy. Programs like artist exchanges, literature and translation promotion, as well as international co-productions contribute to societal and cultural awareness and encourage empathy and understanding, cornerstones of democratic societies. Goethe-Institut Finnland works closely with other European cultural institutes and organizations. By creating space for dialogue and trust, these institutions encourage their audiences to see beyond differences and stereotypes and engage with each other through diverse cultural projects, knowledge exchange and societal discourse.

In today's polarized environment, cultural work can serve as a powerful countermeasure to populism and anti-democratic movements. Collaborative cultural projects—whether in music, art, or education—help to highlight our shared values. Finnish-German collaborations bring people together to contemplate pressing social, political, and ecological issues, mobility, as well as migration.

Continued investment in cultural work both in Finland and Germany will pay off resulting in more a democratic, diverse, and inclusive Europe. It is also crucial to build understanding for future generations through cultural initiatives that cross national borders and offer them opportunities to participate in exchanges that expand their worldviews and commitment to democratic ideals. Youth exchange programs and specialist exchange between experts facilitated by the Goethe-Institut, help cultivate a generation that values openness, multilingualism, and common understanding.

In conclusion, the cultural partnership between Finland and Germany represents the potential of cross-border collaboration to build a more democratic, inclusive society. By embracing principles of trust, diversity, and sustainability, both countries strengthen the democratic values. With a commitment to cultural exchange, dialogue, and mutual respect, we can work together towards a more resilient and undivided Europe.



Irene Bark Director Goethe-Institut Finnland Finland

irene.bark@goethe.de



ALINE MAYR

Empowering youth for a resilient Baltic Sea Region

Expert article • 3735

mpowered young adults contribute significantly to the development of strong societies in the Baltic Sea Region. Their perspectives and innovations are essential for the future of macro-regional cooperation in the Baltic Sea Region, as well as for cohesion policies within and beyond the European Union. Rooted in democratic values, the meaningful participation of younger generations strengthens both decision-making processes and societal resilience.

For the future of Baltic Sea Region cooperation, involving all generations—those who experienced the Iron Curtain and those who did not—is imperative. Younger perspectives are often underrepresented, even though many young people and youth organisations are eager to contribute to macro-regional cooperation on an equal footing.

The Baltic Sea Region Youth Forum (BSRYF), established in 2023 under Germany's presidency of the Council of the Baltic Sea States (CBSS), serves as a cornerstone and platform for the meaningful engagement of young people in macro-regional policies. Through its institutionalisation, youth involvement in decision-making and activities has become more structured, creating a greater impact and fostering sustainability through the development of institutional memory.

Effectively institutionalising youth engagement requires patience and openness from all parties involved—young people, institutions, coordinators, and organisations. Navigating complex governance structures and adapting to major geopolitical developments, while relying on the expertise of volunteers and young mobile professionals from diverse fields, presents daily challenges. Overcoming these challenges demands robust and flexible platforms like the BSRYF and contributions from a wide range of stakeholders.

When it comes to influencing policy, young people often bring a holistic perspective and a future-oriented approach, unconstrained by institutional limitations. Their contributions bridge the latest knowledge from educational institutions and the organisations they volunteer or work with, integrating it into existing policy development structures.

To fully harness this potential, members of the BSRYF advocate for the integration of young people and youth organisations into as many decision-making processes as possible, whether at the local, regional, national, or macro-regional level.

The establishment of the BSRYF has created a dedicated coordination point for interest groups within the Baltic Sea Region. Through its flexible structure, the Forum facilitates the initiation of new activities and cooperation with relevant stakeholders, aligning agendas and advancing the harmonisation of policies within the Baltic Sea Region.

The BSRYF takes advantage of its unique position, fostering horizontal, cross-sector collaboration with stakeholders from the youth sector, institutions, and political platforms like the CBSS, the Baltic Sea Parliamentary Conference (BSPC), and others. In such a diverse yet interconnected region as the Baltic Sea Region, aligning agendas and making collective decisions can be challenging. However, the inclusion of young people adds a valuable dimension to these processes, increasing decision-making effectiveness, enhancing societal impact, and reinforcing vital democratic principles.

The integration of young people into decision-making processes is widely recognised as a means of enhancing societal resilience. Today's youth face challenges that differ from those encountered by previous generations. It is a shared societal responsibility not to make decisions for young people but to involve them actively in the process. This requires openness and a willingness to learn from all parties involved to ensure a constructive dialogue.

The BSRYF fosters such dialogue, building on decades of youth initiatives within the Baltic Sea Region. These efforts have been driven by dedicated individuals and supported by institutions working to contextualise the rights enshrined in the Convention on the Rights of the Child and the EU youth agendas at a macro-regional level. While significant progress has been made, there is always room for further engagement and improvement.

Working with individuals and youth structures across the region reveals that cooperation fosters progress and empowers young people to take on responsibilities or even initiate their own cross-border projects. The spirit of trust and collaboration strengthens the Baltic Sea Region, with young people driving the preservation and advancement of this cooperative ethos.

The Baltic Sea Region, with its multi-level governance structures, holds immense potential for fostering collaboration across generations and borders. Anyone interested in contributing should be able to find a clear entry point.

Despite challenges like limited resources and complex structures, youth cooperation exemplifies the essence of macro-regional collaboration. It is not about competition but about building on one another's experiences to amplify young voices.

While there is no universal model for youth participation, there is a strong commitment from multiple stakeholders to strive for the best possible solutions. Decision-makers often ask how and where to begin. Here are some suggestions, drawn from youth recommendations over the years:

- Invite young people and youth representatives to meetings, ensuring they can share their perspectives and implement their ideas
- Create paid positions for youth advocates within organisations and institutions
- Secure funding for youth events accompanying forums, conferences, and anniversaries, with early planning to ensure a meaningful agenda and effective follow-up mechanisms.

Young people and civil society are essential resources for shaping and implementing effective policies. Involving young people in policy development, decision-making, and cooperation activities is crucial for our shared present and future and the Baltic Sea Region Youth Forum plays a pivotal role in ensuring this vision becomes a reality.

Disclaimer: The views expressed in this article are those of the author and do not necessarily reflect the opinions or positions of the Council of the Baltic Sea States (CBSS), its officials, or its Member States.



Aline Mayr

Policy Officer Youth Council of the Baltic Sea States Sweden

youth@cbss.org



JOYBRATO MUKHERJEE

Academic cooperation with China: A realistic approach

Expert article • 3736

hina has long been an international leader in some areas of research and is quickly catching up with the top of the field in others. As an important centre of innovation, which Germany is and wants to remain, we simply cannot ignore this and need to stay close to top scientific research to advance ourselves. Therefore, Higher Education Institutions (HEIs) in Germany need to find a realistic approach that allows cooperation with China and, at the same time, provides them with the necessary tools to emphasise their interests.

German partners in academic cooperation are increasingly aware of the strategic interests that China pursues through its foreign policy and of the role science plays in the pursuit of such interests, which are not necessarily in line with the interests of the German science community. If German institutions of higher education want to continue a partnership with China, they need to develop a long-term strategy of their own. The German Federal Government provided with its China Strategy a preliminary comprehensive approach, which advocates for continuing cooperation while also focussing on German interests. This includes the implementation of 'de-risking' strategies in their cooperation with China.

As Germany's leading funding organization for the international exchange of students and researchers as well as member association of HEIs in Germany and their student bodies, the German Academic Exchange Service (DAAD) supports the internationalisation of German HEIs and advises decision-makers on education, foreign science and development policy. Our Centre for International Academic Collaboration (KIWi) provides individual advice, networked expertise and peer-topeer exchange for German academic institutions on various aspects of international academic cooperation, from the establishment of contacts with potential partners to the assessment of risks in research projects.

In line with the China Strategy, we support German HEIs in their activities with Chinese partners, but also advocate for a realistic approach. In January 2024, we published guidelines for academic cooperation with China in a <u>recommendation paper</u>, which identifies three core principles:

- Define interests and develop reciprocal relationships: Opportunities and risks in international cooperation need to be weighed carefully. This includes a review of potential risks and opportunities, but also extends to a better integration of Chinese students and staff on German campuses as well as support for German HEIs in collaborations with Chinese research institutions that are leaders in their respective fields.
- 2. Minimise risks: A policy of isolation or "de-coupling" from China incurs greater costs than cooperation with China. A realistic approach means that, instead of ending partnerships, institutions of higher education should reaffirm interests through dialogue with their Chinese partners. They should emphasise the freedom and the responsibilities of involved researchers and institutions, raise awareness of risks in cooperation and establish due diligence processes. German HEIs should have an up-to-date overview of cooperation agreements and researchers involved in cooperations with China at their institutions and establish a regular exchange with them, including regular training to make their members more alert to security issues.

3. Develop expertise on China: Following the China strategy, we support efforts to enhance the expertise on China in German academia. Crucial for an expansion of China expertise is the promotion of student and staff mobility to China, which has recently been drastically declining from the German side. At the same time, HEIs in Germany should consolidate and exploit their existing expertise in disciplines with a regional focus such as China studies, political sciences, law and economics as well as business administration.

We witness a growing demand from universities and research institutions for more guidance and exchange on strategic decisions about international cooperation. At the same time, the integrity of researchers and research results needs to be maintained. Following the principles of academic freedom and institutional autonomy, the final decision should lie with the involved institutions and researchers.

The complexities of cooperation with China demand that institutions continue the discussions with all stakeholders in academia, politics, business, and society. The German discourse on academic cooperation should also include European partners, especially when discussing export controls and the adjustments to rules. In the past, we have contributed to this exchange by providing information and a platform for discussion with other European partners.

Essentially, following the German government's China Strategy, a realistic approach to academic cooperation with China implies 'de-risking', while also allowing for the continuation of successful joint projects as well as of long-established networks.

Joybrato Mukherjee

President German Academic Exchange Service (DAAD) Germany

praesident@daad.de



Scientific cooperation under changing geopolitics

Expert article • 3737

ackground Changes in the geopolitical situation may have an impact on scientific cooperation between countries. For instance, this applies to the Baltic Sea region, which was characterised by the Cold War before the fall of the Berlin Wall. The Iron Curtain separated scientists in the western and eastern block countries hampering scientific exchange. After the political changes in the 1990s, scientific cooperation between the countries emerged in order to exchange data and research findings. This gave birth to the Baltic Sea Experiment (BALTEX, https://www.baltex-research.eu/), now called Baltic Earth (https://baltic.earth), which is an independent scientific network with the vision of better understanding the Earth system in the Baltic Sea region as the basis for science-based management in the face of climatic, environmental and human impact in the region.

BALTEX was founded in 1993 after the rise of the Iron Curtain as a Regional Hydroclimate Project (RHP) within the Global Energy and Water Exchanges Project (GEWEX) of the World Climate Research Programme (WCRP). Scientists from 14 countries covering the watershed of the Baltic Sea reforged connections between the research communities from the east and the west. As the focus was to understand the hydrological cycle and the exchange of energy between the atmosphere and the Earth surface, data from the entire watershed region were collected which required an exchange of data between countries.

In 2013, after 20 years of successful research networking the program was relaunched and renamed to Baltic Earth, with a revised and extended science plan. Baltic Earth has a more holistic view of the Earth system compared to its predecessor encompassing processes in the atmosphere, land, sea, and anthroposphere. The aim is to understand the entire Earth system in the Baltic region and to investigate the effects of all relevant drivers on it. Over the years, a very active network of scientists from all Baltic Sea countries has been built up, with its own infrastructure, including the BALTEX/Baltic Earth secretariat, conferences, workshops, ambitious educational program and publication series.

Activities

Current Baltic Earth activities can be divided into the following categories:

1. Networking: Baltic Earth promotes dialogue between scientists in the different Baltic Sea countries and between the network and similar scientific activities worldwide. Baltic Earth organises a) biennial conferences at changing locations in the Baltic Sea region, b) workshops on current scientific topics, including emerging challenges, c) working groups focusing on specific scientific topics of the Baltic Earth science plan, e.g. with the aim of writing an overview article or developing new topics for a revision of the science plan, and d) a scientific colloquium that takes place regularly online every two months.

- 2. International cooperation: Baltic Earth promotes exchange between scientists in the Baltic Sea region and other international organisations and networks. Examples of this are the various WCRP programmes such as GEWEX (Baltic Earth is part of GEWEX as RHP), the Coordinated Regional Climate Downscaling Experiment (CORDEX, e.g. through participation in its ocean task force) and Med-CORDEX (two joint workshops were organised). In addition, Baltic Earth scientists contributed to the Knowledge Hub on Sea Level Rise organised by the pan-European joint programme initiatives, JPI Oceans and JPI Climate.
- 3. Assessment reports: Scientists from Baltic Earth and its predecessor organisation BALTEX have produced three comprehensive status reports on past and future climate change in the Baltic Sea region. The first two were published as textbooks in 2008 (BACC I) and 2015 (BACC II), while the third report was published as a special issue of a scientific journal with 10 review articles (BEARs). These assessment reports fill gaps in knowledge about regional climate change and its consequences that global status reports cannot.
- 4. Stakeholder cooperation: Baltic Earth has worked with several international organisations, but most intensively with the Baltic Marine Environment and Protection Commission (Helsinki Commission, HELCOM). HELCOM uses the climate information from the assessment reports to take climate change into account in its policies. Recently, a joint expert network on climate change (EN CLIME) was established. This network aims to regularly produce climate change factsheets to inform stakeholders and the public.
- 5. Education: Baltic Earth regularly organizes summer and winter schools for master and PhD students, respectively. Furthermore, a hybrid (face-to-face and online) master course on the climate of the Earth system at Rostock University is open for all interested students from Baltic Earth. Most of the courses are certified so that students in different countries can have European credits recognized. The summer school, which always takes place on a specific Swedish island, was held for the 10th time this year. The students who have taken part in Baltic Earth's courses now make up a large proportion of the participants in conferences and workshops.

Future challenges

In the future, Baltic Earth may face the following challenges.

Baltic Earth is like a club and the membership fee is the personal involvement of its members in the activities. This idea collides with the working conditions at many institutes where research is paid for solely from third-party funds, leaving no time for voluntary research community activities and service to society. As Baltic Earth has no own resources, except for the international secretariat, scientists from some institutes cannot join such activities anymore. In order to counteract this development, one measure would be to acquire larger joint collaborative projects for Baltic Earth's partner institutes.

Expert article • 3737

In response to the Russian invasion of Ukraine, national and institutional restrictions in EU countries require that scientists and students affiliated at Russian and Belarusian state institutes are currently excluded from participation in any of the Baltic Earth events. This means that the situation after 2022 has returned to an era with limited scientific exchange, affecting many of the Baltic Earth activities. Peace is therefore essential so that good scientific cooperation between the east and the west can be rebuilt again.

For the next 5 years, starting in 2025, the international Baltic Earth Secretariat will be led by two secretaries at a Polish (IOPAN) and a German (IOW) institute, after the German institute Hereon in Geesthacht has supported the Secretariat for more than 30 years. The intended more intensive German-Polish cooperation within Baltic Earth will hopefully lead to a strengthening of Baltic Earth as a whole, so that the network will continue to exist in the future and be able to build the research capacity in the Baltic Sea region and advise stakeholders such as HELCOM.



Markus Meier Head

Department of Physical Oceanography and Instrumentation, Leibniz Institute for Baltic Sea Research Warnemünde (IOW) Germany

Professor in Physical Oceanography Rostock University Germany

Chair Baltic Earth Science Steering Group

Co-chair HELCOM-Baltic Earth Expert Network on Climate Change (EN CLIME)

markus.meier@io-warnemuende.de



Karol Kulinski

Associate Professor and Head Marine Biogeochemistry Section, Institute of Oceanology, Polish Academy of Sciences Sopot, Poland

Vice Chair Baltic Earth Science Steering Group

Member HELCOM-Baltic Earth Expert Network on Climate Change (EN CLIME)





KARI LIUHTO

Germany: The most important foreign trader in the Baltic Sea Region

mportance

Although Germany is not the most important trading partner for each Baltic Sea Region (BSR) country, Germany is by far the most important foreign trader in the BSR as a whole. On average, Germany accounts for more than ten per cent of the foreign trade of other BSR countries. Germany's significant share of the Baltic Sea countries' foreign trade does not come as a surprise, as Germany is the thirdlargest trading nation in the world, after the United States and China.

Transformation

Despite the fact that Germany's trade with other BSR countries has grown in euro terms during this millennium, Germany's share of the foreign trade of other Baltic Sea countries has decreased slightly. The main reason for this decline is that Germany accounted for an exceptionally large share of the foreign trade of Poland, Latvia, and Lithuania at the beginning of the millennium (see Table).

Germany-Poland trade

Among the trade flows in the BSR, trade between Germany and Poland is by far the largest. In 2023, the value of trade between Germany and Poland was nearly 175 billion Euros. German-Polish trade is larger than Finland's entire foreign trade. Last year, Poland was Germany's fifth most important trading partner, after China, the United States, the Netherlands, and France. Trade with Germany has improved the competitiveness of the Polish economy and helped internationalize Polish industry. As evidence of this, Poland's foreign trade has increased ninefold during this millennium. Trade with Germany has also strengthened Poland's employment. At the beginning of the millennium (2002), unemployment in Poland was close to 20 per cent, whereas the unemployment rate is currently only around five per cent. The close integration of the German and Polish economies is well illustrated by the fact that the second-largest trade flow in the BSR (Germany-Sweden trade) is just 50 billion Euros. The third-largest trade flow in the region is between Germany and Norway (€40 billion), the fourth largest between Sweden and Norway (€35 billion), and the fifth largest between Sweden and Denmark (€25 billion).

Germany-Russia trade

The total trade turnover between Germany and Russia was only 12.5 billion Euros last year, of which nearly three-quarters consisted of German exports to Russia, meaning that German imports from Russia covered the remaining quarter. German trade with Russia has declined significantly since Russia began its invasion of Ukraine in February 2022. The steepness of the decline is aptly illustrated by the fact that the trade turnover between Germany and Russia was almost 60 billion Euros in 2021. In other words, the value of German–Russian trade has fallen by approximately 80 per cent when comparing the year 2021 and the year 2023. For comparison, Finland–Russia trade contracted by about 85 per cent during the same period. It should, however, be noted that Latvian

Expert article • 3738

exports to Russia in 2023 were only about five per cent lower than two years earlier. This small decline suggests that some Western countries are exporting goods to Russia through Latvia, with goods first being declared as exports to Latvia. For example, exports of optical devices from Latvia to Russia have grown by over 15 per cent when comparing the year 2021 and the year 2023. Significant amounts of Western products also flow to Russia

Table. Germany's share in the for	eign trade of the littoral states of the
Baltic Sea (%)	

Germany's share in exports of	2000	2010	2020	2023
Denmark	16.8	14.9	12.6	13.8
Estonia	7.6	4.7	6.1	6.6
Finland	12.2	9.4	13.5	10.5
Latvia	17.2	8.7	7.2	6.6
Lithuania	14.3	9.8	8.1	7.8
Norway	10.5	11.1	12.0	18.8
Poland	35.6	26.0	28.9	27.9
Russia	9.0	4.0	5.5	5.1
Sweden	11.0	9.6	10.4	10.5
Average	14.9	10.9	11.6	12.0

Germany's share in imports of	2000	2010	2020	2023
Denmark	20.5	20.7	21.8	19.9
Estonia	6.2	10.6	9.7	9.1
Finland	14.2	13.1	15.4	14.1
Latvia	15.6	11.5	10.4	11.2
Lithuania	15.1	10.9	12.9	13.7
Norway	11.9	12.3	11.3	11.3
Poland	24.2	21.7	21.9	19.8
Russia	11.5	11.6	10.1	4.9
Sweden	17.5	18.0	18.1	16.7
Average	15.2	14.5	14.6	13.4

Note: The WITS date differs slightly from the data provided by the national statistical authorities.

Sources: WITS (2000-2020); national statistical authorities (2023); EIU (for Russia 2023).



Expert article • 3738

through Lithuania.

Germany-Finland trade

The value of trade between Finland and Germany in 2023 was a little over 20 billion Euros. German exports to Finland consist mainly of machinery and transport equipment, which accounted for half of German exports to Finland. Correspondingly, the most significant import product from Finland to Germany was machinery and transport equipment, accounting for nearly 40 per cent of Germany's total imports from Finland (SITC 1 level). These figures demonstrate close intra-industry integration between Finland and Germany.

Germany-Norway trade

Norway's trade with Germany has grown rapidly since Russia invaded Ukraine. While in the year 2021, the trade turnover between Germany and Norway was 30 billion Euros, last year the trade value was close to 40 billion Euros. This growth in trade is driven by increased fuel deliveries from Norway to Germany. The reason for the significant increase in fuel deliveries from Norway to Germany is the EU sanctions imposed on Russia, which have practically stopped the fuel deliveries from Russia to Germany, except for LNG, as well as the sabotage of the Nord Stream gas pipeline in September 2022. Before Russia's invasion of Ukraine, two-thirds of Germany's natural gas imports and one-third of its crude oil imports came from Russia. Now, German–Russian energy cooperation has practically ended.

Conclusion

The German economy is extremely dependent on its foreign trade and thus on the development of global markets. Germany's dependence on foreign trade is illustrated by the fact that the ratio of foreign trade to GDP in Germany is about 80 per cent. The corresponding figure in the United States is only 20 per cent. In other words, the US economy largely runs on domestic demand, whereas the German economy is dependent on global demand. Motor vehicles and their parts form more than 15 percent of the German exports, and therefore the success of the adaptation of German automobile industry to the needs of the global transformation of the automobile industry, i.e. the electrification of next car generation, is utmost important.

The re-election of Donald Trump as president of the United States may lead to a new trade war with China, which may also side-effects in the US-EU trade. Since Germany is the largest player in EU-US trade, sudden changes would not only shake Germany's economy but also the entire EU economy, as Germany accounts for a quarter of the EU's GDP. Therefore, Germany's success in reforming its economy and maintaining its competitiveness is in the interest of the entire European Union.



Kari Liuhto

Professor, Director Pan-European Institute, Turku School of Economics, University of Turku Finland

Director Centrum Balticum Foundation Finland





Centrum Balticum

BALTIC RIM Economies

To receive a free copy, register at www.centrumbalticum.org/en

