ANALYSIS 28 April 2025



Defence and climate: seven points for a common agenda

Beyond the debated public spending trade-off between defence and climate goals lie converging interests

Simone Tagliapietra

Faced with major security challenges, Europe is preparing to boost its defence capacity. To defend itself against Russia without the United States, Europe needs to rapidly increase spending from the current level of about 2 percent of GDP to an estimated 3.5 percent of GDP – an increase of about €250 billion annually (Burilkov and Wolff, 2025). In March, the European Commission proposed the ReArm Europe Plan/Readiness 2030[1], which seeks to mobilise €800 billion in defence spending.

Balancing climate and defence spending

Some see increased defence spending as being in conflict with the climate agenda[2], arguing that boosting defence spending by 1.5 percent of GDP while increasing climate spending by 2 percent of GDP, as required to meet EU climate objectives (Pisani-Ferry and Tagliapietra, 2024), would be unsustainable.

While there will be a trade-off when it comes to public spending – especially in the budgets of countries with more limited fiscal space than Germany, but also in the EU budget itself – the defence and climate agendas are not entirely in conflict. Here, we outline seven major converging interests. These areas should form the basis for a common defence and climate agenda which would allow the EU to develop more coherent policy for the future.

Seven converging interests between the defence and climate agendas

The transition to *clean electricity* is the first shared interest between the defence and climate agendas, especially for Europe, which is highly reliant on imported fossil fuels.

The energy crisis has shown that Europe's reliance on imported gas is one of its core security vulnerabilities. The clean electrification process, mainly based on domestic renewable energy resources, will reduce this vulnerability and increase the resilience of the European energy system. Growing threats against critical energy infrastructure including the electricity grid can be addressed by distributed renewable energy systems, including microgrids and smart grids (sources of electricity generation distributed across many locations with solar panels and wind turbines, rather than a few big gas-fired power plants).

A secure and competitive electricity supply is crucial to power the energy-intensive defence sector at a manufacturing and operational level and to power the underpinning supply chains. Modern defence equipment including drones, autonomous systems and Al-powered surveillance tools run on electricity. By generating electricity on the battlefield through portable renewable energy systems, reliance on vulnerable fuel deliveries can be avoided, providing an additional strategic advantage.

Second, developing *renewable and low-carbon fuels* is vital to decarbonising aviation, maritime transport and heavy-duty vehicles and to ensuring secure fuel supply to the defence sector. Europe has a leading position in the development of these fuels – holding 60 percent of global high-value patents and topping global rankings for the most innovative companies (Draghi, 2024) – but its planned production and capacity to produce energy are limited. This sector should be scaled up to contribute to the full decarbonisation of transport while establishing a globally competitive European clean-tech sector.

Beyond decarbonisation and competitiveness, renewable and low-carbon fuels are crucial to secure the operation of European military forces in the long run (Niinistö, 2024). European military forces depend on the civilian market for fuel and demand will continue to increase, driven by growing defence capacity and energy-intensive equipment (for example, an F-35 fighter jet burns 60 percent more fuel than an F-16).

Third, *greening defence procurement* offers an opportunity to pursue Europe's security, climate and competitiveness objectives. The Clean Industrial Deal puts a strong focus on the creation of lead markets to help build a business case for clean technologies and products including green steel, cement and chemicals. Public procurement – <u>a long-neglected tool of European climate policy – is increasingly being</u> employed in this context. The upcoming Industrial Decarbonisation Accelerator Act[3]

is set to push for wider application of the Net-Zero Industry Act's so-called 'resilience and sustainability criteria' already introduced for clean technologies.

These criteria should also be applied to defence procurement, given the sector's reliance on materials such as steel, aluminium and chemicals. The use of green alternatives does not mean that quality will be compromised – green steel can have the same properties as conventionally produced steel if processed and treated properly. Green public procurement could turn the defence sector into a lead market for clean products, supporting the transformation of EU industrial sectors that are essential for defence. This would not increase the cost of Europe's rearmament, as the 'green premium' would be relatively negligible given the overall high cost of defence equipment.

Fourth, the defence and climate agendas could ensure a *just transition in the automotive sector*. As the overall decline in demand for cars in Europe and the transition from internal combustion engine vehicles to electric vehicles sees the closure of car factories across Europe[4], the defence industry is looking to expand its activity. Electric vehicles require fewer moving parts than internal combustion engine vehicles and rely on different components. This structural change is disrupting supply chains, affecting everything from the manufacturing of engine components and transmissions to the layout and operation of final assembly plants.

Unused automotive production infrastructure should be used to speed-up the upgrading of Europe's defence capabilities while tackling a sensitive social impact of the green transition. In March, Rheinmetall stated that it could take over soon-to-be idle Volkswagen plants to boost its tank production capacity, the Belgian industrial group John Cockerill showed interest in taking over the shuttered Audi plant in Brussels to establish a production unit for military vehicles[5] and the Italian government announced a plan to support the conversion of the country's suffering automotive supply chain to defence and aerospace manufacturing[6]. The EU should support the repurposing of infrastructure, possibly through a repurposed Just Transition Fund, which is under-utilised in its current form (Pisani-Ferry and Tagliapietra, 2024).

Fifth, defence and climate technologies are both highly reliant on the same set of critical raw materials and require a reliable and secure supply of strategically important resources. The Critical Raw Materials Act is a step towards a more integrated approach to raw material security, establishing a framework to reduce dependencies

and build strategic partnerships. However, its implementation should explicitly reflect the dual-use nature of many of these materials, so that defence and clean tech supply chains do not compete for access to scarce resources and instead coordinate efforts to ensure their joint resilience. The EU needs to develop smart stockpiling strategies, co-investing in upstream projects abroad with likeminded partners, supporting innovation in substitution and recycling and aligning trade and industrial policy across both sectors.

Sixth, both defence and climate rely on *innovation*, requiring cutting-edge technology, Innovation in renewable and low-carbon fuels, batteries, portable solar panels and circularity would have benefits for European defence and society more broadly. Increasing coordination between the European Defence Fund, Horizon Europe and the EU Innovation Fund could foster the emergence and scale-up of clean technologies with security applications.

The EU should coordinate with NATO as it ramps up its innovation agenda with climate security in mind. The NATO Innovation Fund[7], launched in 2023, invests in disruptive technologies relevant to both defence and climate. Meanwhile, NATO's Defence Innovation Accelerator for the North Atlantic (DIANA)[8] fosters transatlantic collaboration in dual-use innovation. Cooperation in aligning innovation priorities, particularly around dual-use clean technologies, would enhance interoperability, reduce duplication and maximise the strategic impact of public R&D investments.

Seventh, both agendas require a focus on **security and preparedness**. Energy supply and infrastructure security require preparedness and planning for disruptions caused by malign actors or extreme weather events. This planning can also contribute to sustainability. Planning for sufficient gas or electricity reserves can reduce demand for emergency surge-use of coal power plants. Whilst building contingency fuel pipelines may sound unsustainable, it can prevent excessive use of fuel trucks in case of crisis. Monitoring infrastructure and shipping can prevent oil spills or infrastructure incidents, such as drone attacks against fuel depots or nuclear power plants, leading to a major ecological disaster. Security directly contributes to environmental sustainability.

References

Burilkov, A. and G. Wolff, (2025) 'Defending Europe without the US: first estimates of what is needed', *Analysis*, 21 February, Bruegel, available

at https://www.bruegel.org/analysis/defending-europe-without-us-first-estimates-what-needed

Draghi, M. (2024) The future of European competitiveness. Part A:A competitiveness strategy for Europe, available

at https://commission.europa.eu/document/download/97e481fd-2dc3-412d-be4c-f152a8232961_en

Niinistö, S. (2024) Safer Together – Strengthening Europe's Civilian and Military Preparedness and Readiness, available at https://commission.europa.eu/document/5bb2881f-9e29-42f2-8b77-8739b19d047c_en

Pisani-Ferry, J. and S. Tagliapietra (2024) 'An investment strategy to keep the European Green Deal on track', *Policy Brief* 31/2024, Bruegel, available at https://www.bruegel.org/policy-brief/investment-strategy-keep-european-green-deal-track

1] Julian Gomez, 'Readiness 2030: How is Europe planning to rearm and can it afford it?' Euronews, 26 March 2005, https://www.euronews.com/my-europe/2025/03/26/readiness-2030-how-is-europe-planning-to-rearm-and-can-it-afford-it.

[2] Laurence Tubiana, 'What European Security Requires', Project Syndicate, 26 February 2025, https://www.project-syndicate.org/commentary/european-security-requires-renewables-clean-industrial-base-by-laurence-tubiana-2025-02.

[3] See the open (at the time of writing) European Commission public consultation for further details: https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14505-Industrial-Decarbonisation-Accelerator-Act-speeding-up-decarbonisation_en.

[4] Theo Legett and Lora Jones, 'Volkswagen agrees deal to avoid German plant closures', BBC, 20 December

2024, https://www.bbc.com/news/articles/cje9kv3q94po; Lauren Walker, 'Audi

factory in Brussels closes after over 75 years', The Brussels Times, 28 February 2025, https://www.brusselstimes.com/1463904/audi-factory-in-brussels-shuts-up-shop-after-more-than-75-years; DW, 'Germany: Bosch to cut 5,000 jobs with car industry in crisis', 22 November 2024, https://www.dw.com/en/germany-bosch-to-cut-5000-jobs-with-car-industry-in-crisis/a-70862628.

produce tanks', Financial Times, 12 March
2025, https://www.ft.com/content/f4bb94b3-afba-4661-812b-bbba26d0f7ec; The Brussels Times, 'Belgian industrial group interested in military production at Audi

[5] Patricia Nilsson, 'Rheinmetall says it could take over idle Volkswagen plants to

- Brussels Times, 'Belgian industrial group interested in military production at Audi site', 8 March 2025, https://www.brusselstimes.com/belgium/1477403/belgian-industrial-group-interested-in-military-production-at-audi-site.
- [6] See https://www.mimit.gov.it/it/notizie-stampa/automotive-urso-in-campo-2-5mld-nel-triennio-2025-27-a-supporto-della-filiera.
- [7] See https://www.nif.fund/.
- [8] See https://www.diana.nato.int/.

Bruegel

Rue de la Charité 33, B-1210 Brussels (+32) 2 227 4210 info@bruegel.org

Bruegel.org