



Top 10 — GAC Essay Competition 2025

Essay Question

Germany, the United States, and the wider alliance are at a crossroads. We are entering a new era of international relationships, affecting dimensions such as global trade, defense, and security. This moment calls for a Transatlantic Transformation – a rethinking of how we collaborate, communicate, and confront global challenges together.

What are your ideas for redefining the transatlantic partnership in light of this transformation? How would you reinvigorate it for the future?

Title of the Essay

From Prototype to Protection: How the U.S. and Germany Can Close the Fielding Gap

Author

Febin Roy

Master in Management, ESCP Business School

Essay

The pace of innovation has never been faster. Startups are building technologies that can track wildfires in real time, repel drone incursions, harden digital infrastructure, and extend the reach of search-and-rescue missions. But invention alone does not deliver impact.

From Prototype to Pause

In the United States, Defense Innovation Unit (DIU) has lifted the prototype-to-fielding rate to about 50 percent, a real gain that still leaves half of promising tools without a contract (Inside Defense, 2024). A 2024 independent commission reached an even sharper conclusion: the Pentagon's budgeting process, built in the 1960s, needs major reform to deliver capabilities at the speed today's threats demand (PPBE Reform Commission, 2024).

Germany faces a mirror image of the same issue. After declaring a historic *Zeitenwende* (*turning point*) in defense, Berlin has moved to rewrite procurement rules because legacy systems were simply too slow to meet urgent needs (Defence News, 2025).



The Investment Bottleneck

The problem is not only governmental. In U.S., Even with record uninvested capital in venture funds, deal pacing has slowed, exits are scarce, and late-stage investors are more selective (Financial Times 2024). For defense startups, this compounds into a vicious loop. Private investors want to see government revenue before committing major capital, but government adoption is slow and unpredictable. A Wall Street Journal analysis found that the total value of government awards to leading U.S. national security startups is still less than half the capital venture investors have put in (Wall Street Journal 2024).

In Germany, founders face a sharper funding cliff. A 2025 survey found that one in four German tech startups are considering moving abroad due to a lack of venture capital, and only 23% believe the domestic VC supply is sufficient (Munich Startup 2025).

For dual-use founders (those building products that serve civilian and military users), the gap is even wider. In 2024, defense tech attracted roughly 1.8 percent of total European venture funding, held back by investor caution and prevailing norms. (McKinsey 2025).

There are standout cases such as Helsing's €600 million raise and Quantum Systems reaching unicorn status, but they are outliers rather than the rule. The lesson is clear: when credible demand signals exist, capital arrives. Without them, startups stall.

A Proposal: The Transatlantic Fielding Bridge for dual-use technologies

The aforementioned gaps in the United States and Germany are complementary: both countries struggle to turn prototypes into programs at speed, the United States has record uninvested venture capital, and Germany has a thinner defense-startup market with less late-stage capital.

My proposal is to establish a Transatlantic Fielding Bridge for dual-use technologies, a practical, near-term way to close the gap between pilots and fielding. Its core mechanism is clear: the U.S. and Germany act as a single, decisive customer, issuing one joint call, running one test plan, and placing two synchronized production orders in priority dual-use areas.

The process is straightforward:

- DIU in the United States and Germany's Cyber Innovation Hub issue a single joint call for solutions in priority areas such as counter-drone defense, maritime autonomy, and cyber resilience.
- A joint board agrees on one test plan and a common set of pass/fail thresholds, then vendors run the protocol once at U.S. or German sites. If a system meets the bar, both governments place synchronized initial production orders using existing rapid contracting tools. One round of testing, two purchase orders.



The proposal is practical because it plugs into what already exists rather than creating new bureaucracy:

- DIU in the United States and Germany's Cyber Innovation Hub already scout and test startup technologies with their forces. The Bridge could connect those pipelines and can use simplified contracting to turn successful joint tests.
- **It also complements NATO DIANA.** DIANA is built to **scout, mentor, and test** across the Alliance, while the Bridge is built to **commit, contract, and field** as a bilateral U.S.– Germany fast lane. The Bridge serves dual-use startups in both countries and sits alongside NATO's Defence Innovation Accelerator for the North Atlantic.

By starting with dual-use technology, the Bridge avoids the thorniest export restrictions tied to pure weapons, while delivering immediate, visible benefits to citizens and militaries alike, creating momentum we can later apply to more sensitive, defense-only systems.

Joint Orders, Lower Costs, Faster Fielding

Shared orders deliver larger initial production runs, faster learning curves, lower unit costs, and higher reliability. For startups, two sovereign customers placing real orders from a common test plan is the strongest investor signal; it is often the difference between struggling to raise funds and securing the capital to scale.

For the U.S. government, this model increases the overall prototype to fielding rate, speeds procurement, and exposes DIU to European innovations they might otherwise miss. For Germany, co-buying with the United States helps domestic firms reach scale without relocating abroad, strengthens the Bundeswehr's capabilities, and thereby creates high-value jobs in robotics, secure communications, and advanced electronics.

A Platform for More Than Defense

While the Fielding Bridge begins in defense, its logic reaches well beyond security. The same playbook can speed the uptake of clean industrial goods such as low-carbon steel and cement, and grid flexibility tools such as long-duration storage and grid-forming inverters. I believe defense is the right place to start because the need is urgent and the buyers are concentrated. The enduring benefit is a transatlantic rhythm of acting together as fast as the technology evolves.



The tide is rising for everyone. If we row in time, the crossing is shorter, the cargo safer, the arrival certain. It is not effortless, but it is practical and it is the way forward.

References / Bibliography

Inside Defense (2024). *DIU says 10 technologies made successful transitions in FY-23*.

Available at: <https://insidedefense.com/daily-news/diu-says-10-technologies-made-successful-transitions-fy-23>

PPBE Reform Commission (2024). *Final Report - PPBE Reform Commission*. Available at:

<https://ppbereform.senate.gov/finalreport>

Defense News (2025). *Berlin launches laxer laws in bid to hasten defense acquisitions*.

Available at: <https://www.defensenews.com/global/europe/2025/07/23/berlin-launches-laxer-laws-in-bid-to-hasten-defense-acquisitions/>

Financial Times (2024). *Venture capital dry powder has nowhere to go*. Available at:

<https://www.ft.com/content/b7cd9329-c3fd-4408-8807-ce9c2939da6c?>

Wall Street Journal (2024). *Exclusive | Silicon Valley Wins Few Government Contracts*.

Available at: <https://www.wsj.com/politics/national-security/silicon-valley-wins-few-government-contracts-4c90b47d>

Munich Startup (2025). *Bitkom study: Capital shortage hits German startups*. Available at:

<https://www.munich-startup.de/en/111310/bitkom-study-capital-shortage/>

McKinsey (2025). *European defense tech start-ups: In it for the long run?*. Available at:

<https://www.mckinsey.com/industries/aerospace-and-defense/our-insights/european-defense-tech-start-ups-in-it-for-the-long-run>