

Are you ready for
tomorrow's battle
or yesterday's war?

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Introduction

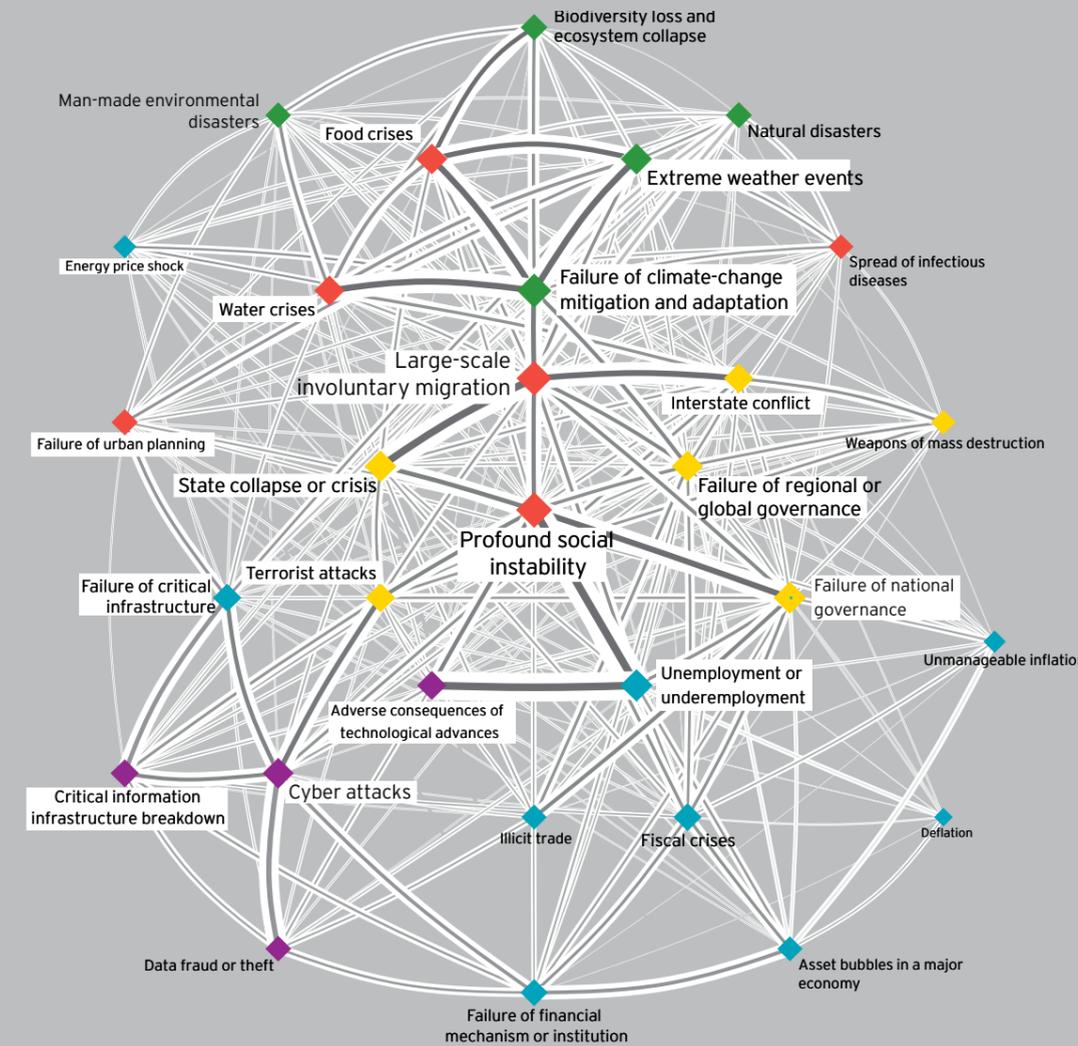
To meet the challenges of fifth-generation warfare, defense organizations need to transform in five important areas.



Chaotic, mercurial and fought by state and non-state actors in the digital cloud as well as the physical battlespace: fifth-generation warfare is here. The changes it brings are disrupting defense organizations on an unprecedented scale.

At the same time, a complex, interconnected risk environment is making a major geopolitical crisis in the near future significantly more likely (Figure 1).

Figure 1. World Economic Forum, The Global Risks Interconnections Map 2018¹



¹ World Economic Forum, The Global Risks Report 2018

To respond effectively today and control tomorrow's battlespace, defense organizations must adapt to and master this new reality, which means they need to become smarter, simpler and stronger.



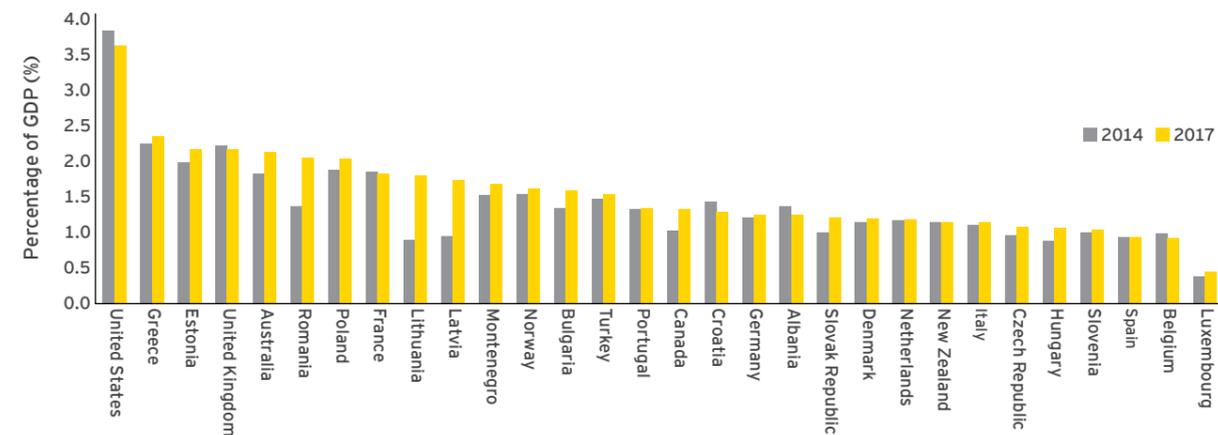
The disruptive power of digital

Rogue states, cyber attacks, terrorism and competition among nations for technological superiority are the major forces reshaping the operating environment.

Rapid technological change has been the driving force behind these shifts and will continue to define defense challenges in the future. Cybersecurity, big data, artificial intelligence, robotics and autonomous vehicles are already causing seismic shifts in global security. Directed energy weapons, hypersonic platforms and reusable swarm technologies are next. All of this challenges the way defense leaders manage their organizations traditionally and makes things like logistics much more complex.

Then, there's the issue of cost. Defense organizations require an immense amount of resources to innovate and be battle-ready in the current climate. To reflect this, and a healthier global economy, the NATO and Five Eyes countries have increased their investments in equipment and technology (Figures 2,3). Global defense spending is estimated to total \$1.7 trillion in 2017 – the highest ever in the post-Cold War era.²

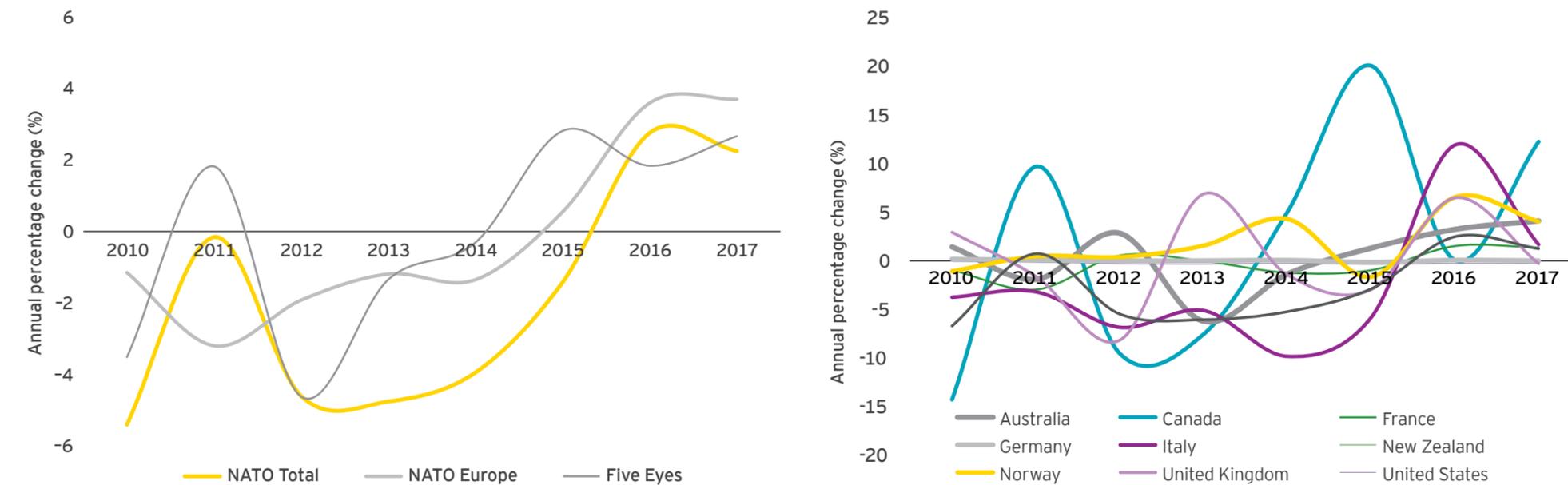
Figure 2. NATO and Five Eyes defense spending as share of GDP (%)³



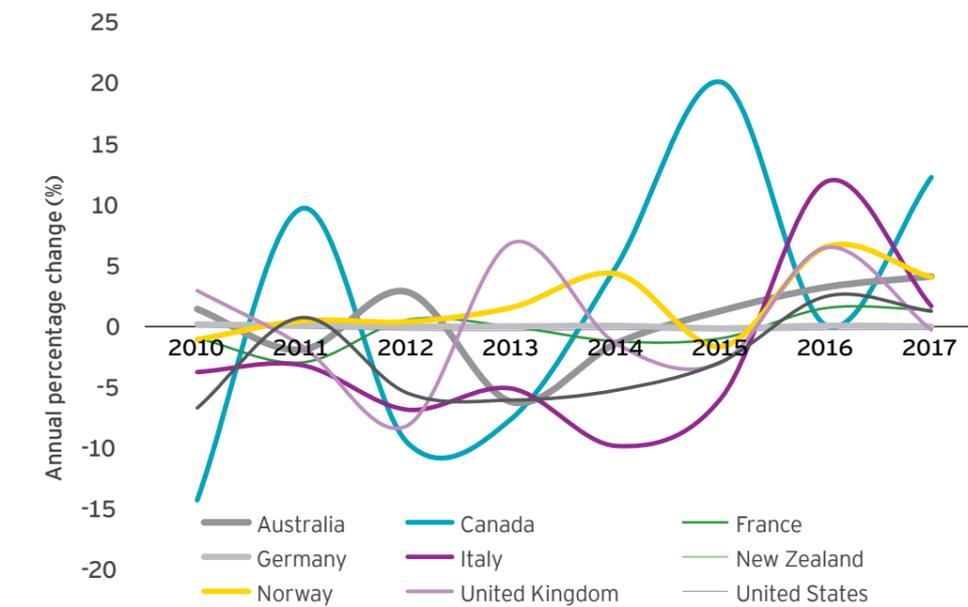
² IHS Markit Global Jane's Defence Budgets Report, December 2017.
³ North Atlantic Treaty Organization. Data accessed on 28 January 2018.



Figure 3. Annual percentage change of defense expenditures for major alliances and key countries, 2010-17⁴



⁴ North Atlantic Treaty Organization; Stockholm International Peace Research Institute. Data accessed on 28 January 2018.



While budgets are growing, so are threats, instability and defense-specific inflation – which far outstrips regular inflation. Even technological advances that save money in the long run, such as artificial intelligence and directed energy weapons, bring high upfront costs.

With the pressure on to make the right decisions and prove they're getting value for money, defense leaders need to adjust how they allocate budgets. In other words, they need to spend smarter.



Simpler is stronger

Defense organizations must be ready to generate force elements that are ready for the fight. These must have the capabilities required to thrive in the digital operating environment and to excel in fifth-generation warfare.

In response to the paradigm shift in warfare, defense leaders need to be dynamic, agile and flexible. The current approach – centered on exacting thoroughness and minimizing risk – is increasingly unfit for purpose. The layers of administrative approval and process requirements involved in decision-making hamper productivity and have a direct impact on the front line.

To become swifter and more responsive, defense organizations need to support their Armed Forces through digitally-enabled processes and people. By questioning outdated processes, simplifying extraneous requirements and losing long-held conventions, they'll be able to move to game-changing technologies that will make them stronger.

5 **Five areas of focus**

Defense leaders now recognize that meeting these combined challenges means transforming the way they operate in the battlespace and in the back office.

They need to:

- Be smart about spending
- Take an enterprise-wide approach to digital
- Transform the workforce
- Optimize the supply chain
- Modernize infrastructure

1

Be smart about spending

Maintaining a military that's prepared to face uncertain future challenges is an expensive business. Despite the uptick in global defense spending, defense organizations still find themselves under financial pressure. Anything outside of pre-approved budgets is also subject to intense scrutiny. With the "new normal" of slower economic growth set to continue, defense organizations need to make smarter investments while remaining poised for action.

Smarter spending isn't just about balancing the books. It's about planning and investing for the long term, and managing assets and costs effectively. That includes accounting for where the money is spent and budgets are allocated and understanding the value and impact of those investments.

- ▶ How can defense leaders allocate resources more wisely and effectively?
- ▶ How can defense leaders drive the bottom line for effective cost management?
- ▶ How can defense organizations use new tools to understand and estimate costs better?
- ▶ How can defense leaders prove that their investment has paid off?
- ▶ What's the right balance between technology, administration, and operations?
- ▶ How can defense organizations arrive at valuable insights faster?
- ▶ How can defense leaders cash in on the changes in the operating environment of the future?
- ▶ How can defense organizations build programs that are resilient and responsive to a rapidly-evolving geopolitical landscape?

2

Take an enterprise-wide approach to digital

Technology helps defense organizations gain strategic advantage over enemies, make balanced strategic plans, control operational performance and manage resources. Digital transformation can also help them tune operational processes to output requirements and therefore respond to emerging threats faster. It's why defense organizations are investing hundreds of billions of dollars in AI and machine learning, cyber weapons and threat detection programs, cybersecurity apparatus, robotics and digital tools for their employees.

However, to get more bang for digital buck, defense organizations need to do more than investing in standalone projects that solve short-term problems. They need back-office tools and systems that are fit for purpose today, but can also flex in the future while fitting into existing systems and structures. Taking this integrated, systems-wide approach to digital will ultimately make them nimbler and more effective.

- ▶ What role do automation and AI play in transforming administrative processes?
- ▶ How are defense leaders preparing for the next frontier of big data?
- ▶ Is big judgment the next evolution of big data?
- ▶ Does weak information and enterprise management pose a threat to organizational stability?
- ▶ How does integrating smart devices and mobile endpoints exacerbate network management challenges?
- ▶ Do civilian and military personnel have the skills to operate next-generation technologies?



3

Transform the workforce

Defense organizations need flexible, dynamic and sustainable workforces to meet evolving military needs and society's expectations. Recognizing this, leaders are already integrating military branches to create new capabilities and making changes to the way they employ civilian and reserve members of the defense team. This is helping to broaden the pool of talent. Developing a fifth branch of service – the so-called "cyber corps" – is also a focus. However, building a workforce that's fit for the future requires changing the whole organization.

Defense leaders need to get better (and faster) at recruiting and keeping good people. They need to motivate both front-line and civilian employees through higher-quality career development. And they need more diversity in both leadership and combat roles. Most pressing of all, though, is the rising tide of digital. This is reinventing work by replacing labor with technology, creating new workforce models and preferences, and transforming operational demands. The impact on defense organizations will be huge. Defense leaders must adapt while they keep the engine running and uphold the institution's shared vision and mission for service.

- ▶ How will defense team members embrace the future of work?
- ▶ How can defense leaders redefine purpose and public service in the digital age?
- ▶ What's the winning strategy in the battle for talent?
- ▶ How are defense leaders responding to demographic changes and evolving workforce preferences?
- ▶ What's the role of AI and robotics in the administrative and management functions?
- ▶ What's the best way to help veterans transition to civilian life?

4

Optimize the supply chain

Tomorrow's defense organizations will need to deploy the right forces in the right places even faster than they do today. And those forces will need the right equipment and supplies in the right amounts. This reality will require a new vision for acquisition. That's why defense organizations are investing significantly in equipment, innovation and digital technologies. They're also shifting the way they manage their procurement and supply chain activities.

This will lead to swift changes in the defense industrial base, such as front line to industry integration, autonomous supply chains and physical-digital operational capacities. Defense organizations will look increasingly to predictive field maintenance, the warehouse of the future and intelligent asset management to help them sustain the future forces. To realize the full benefits of these changes, they'll need to replace outdated processes, manage costs effectively and up-skill their supply chain workforce. The outcome will be next-generation defense procurement that's faster, resilient and more secure.

- ▶ What makes a global supply chain secure?
- ▶ What's in the playbook of a defense organization with a resilient supply chain?
- ▶ Are defense supply chains fully digital?
- ▶ What inventory do defense organizations need and how do they control their holdings?
- ▶ How are defense suppliers adjusting to digital disruption?
- ▶ How can defense organizations move their supply chain performance data from chaos to insight?
- ▶ What cybersecurity and network security functions are in place to protect supply chains and networks of suppliers?

5

Modernize infrastructure

All Armed Forces need infrastructure that's modern, resilient and fit for the evolving nature of conflict and technology. Yet of the estimated \$2-trillion-worth of defense estates in the world, many are aging, outdated and surplus to requirements. And each year, they cost tens of billions of dollars to maintain and modernize. Accommodation and facilities must also match the expectations of today's service people and their families. Also, bases must provide infrastructure that's aligned to the operational needs of the services and is environmentally sustainable.

What's more, much of the world's defense infrastructure dates back decades, even centuries, when warfare was completely different. Some of these assets are now obsolete, while others are unnecessarily large for today's mobile, tech-enabled Armed Forces and their equipment. This gives defense organizations an opportunity to save significant amounts of money by reducing the size of their footprint. They should do this by developing a vision for infrastructure that reflects what tomorrow's Armed Forces will need – one that rethinks concepts such as the need to own that infrastructure.

- ▶ How does real property and infrastructure investment fit into the overall strategy of force modernization?
- ▶ What does the defense infrastructure of the future look like?
- ▶ How can military bases be made smarter?
- ▶ How can defense infrastructure be made environmentally sustainable?
- ▶ Are defense organizations prioritizing digital over physical infrastructure?
- ▶ What's the role of private financing in building and maintaining defense infrastructure?
- ▶ How can defense organizations automate their infrastructure management to free up personnel for mission-critical tasks?
- ▶ How many military bases are currently resilient against climate change, a cyber attack or a massive hit on the energy grid?

How EY can help

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