Testimony to the European Political Strategy Centre on Strategic Autonomy in the Digital Age

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In a high-level hearing hosted by the European Political Strategy Centre, Daniel Castro outlined how important technology trends will affect Europe's ability to protect its strategic interest. First consider connectivity: continued growth in broadband connectivity, including with emerging 5G wireless networks, has resulted in more devices coming online and staying online with data linked and synced though the cloud. And this change has created important new stakeholders in critical digital infrastructure such as the wireless equipment providers and the cloud service providers, many of which are foreign firms.

Second, there are growing numbers of connected devices – collectively known as the Internet of Things – with significant amounts of computing power. This trend has significantly expanded the potential vectors for cyber-attacks, as the number of intelligent endpoints on the network multiplies. Connected devices are both new targets and, if compromised, they can become part of adversarial botnets. The risk from these devices is exacerbated by the fact that many of these systems will be directly connected to 5G networks. Unlike many of today’s devices which reside behind the firewall and, thus, they will be more vulnerable to cyber threats.

Third, artificial intelligence or AI is creating massive disruption across virtually every industry as firms use the technology to increase automation. The rise of AI creates new vulnerabilities as attackers learn how to exploit automated systems and also new methods of attack. Hackers wield AI for malicious purposes such as using it to create deep fakes to spread misinformation online. Notably, AI
is also a tool for those defending against cyber-attacks and could be a useful countermeasure especially given an undersized cybersecurity workforce. However, to date at least this capability has been underdeveloped.

Lastly, blockchain – which still is in its early stages – has the potential to weaken traditional forms of institutional power and control by decentralising trust in various systems used today such as identity systems, financial systems and security systems. These changes may in some cases undermine traditional forms of state control, limiting the ability of government to protect its national interests.