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China's Emergence as a Volumetric State

The Volumetric Dimension of the 15th Five-Year Plan and Beyond

Nadine Godehardt and Zhang Xin

The Chinese leadership has implemented various official directives, plans, and policies that are, step-by-step, coalescing into a comprehensive architecture of volumetric statecraft. Volumetric power integrates spaces such as the atmosphere, the deep sea, the polar regions, the (geological) subsoil, or outer space into political governance. Volumetric states develop special economic and techn(ological) capacities to gain control of, and even govern, these spaces. Volumetric statecraft implies the Chinese state's willingness and capacity to integrate various policy dimensions into a set of comprehensive ecosystems. China's 15th Five-Year Plan specifically manifests the volumetric dimension in Chinese governance. This directly impacts the type of challenge that China will pose to the European Union (EU) in the coming years, and it will force the EU to adapt a volumetric strategy of its own towards China.

China's 15th Five-Year Plan (2026–2030, FYP) comprises guidelines for the nation's economic, social, and technological development to 2030. FYPs represent the key roadmap for China's domestic progress as well as the extent of its engagement with external actors (e.g. businesses, policy-makers). Alongside debates in China over the scope of economic security, the country is increasingly prioritising expansion into new (technological and economic) dimensions and spheres, while at the same time advancing self-reliance and preventive measures to secure this type of openness. Against the backdrop of more than a decade of planning under President Xi Jinping's leadership, most of China's activities indicate the development of a comprehensive architecture of volumetric statecraft.

What is a volumetric state?

The "volumetric turn" in the discipline of Political Geography rethinks geography in terms of "volumes", that is, in three-dimensional terms rather than a two-dimensional flat surface. It analyses the spaces that new technological ecosystems and innovation open up across new heights, depths, and cosmological scales. Following this understanding, state territory is not primarily limited to (mostly horizontal) areas, but also encompasses materially dynamic, legally segmented, and technically modelled (also vertical) depths and heights. The term "volume" integrates spaces such as the atmosphere, the deep sea, the polar regions, the (geological) subsoil, or outer space into political governance. A "volumetric state"



needs to build special capacities to gain control of and even govern these spaces. These capacities include the development of comprehensive future technological ecosystems. Examples are sensors and remote sensing, satellite and communication networks, seismic and non-gravimetric subsurface mapping, software-dependent infrastructures (e.g. data centres, utility grids), standards and protocols, and increasingly digital twins (e.g. in product development, urban development) as well as agentic artificial intelligence (AI). For a volumetric state, expansion is not simply a geographical concept, but one rooted in the coupling of volumetric imaginaries and technical controllability. As Andy Hanlun Li emphasises, modern sovereignty needs increasingly to be understood as “technoscientific management of the territory’s materiality”. The focus on “volume” and “volumetric” transforms the meaning of state expansion and control, which, following this logic, dives deep into spaces previously beyond the reach of human intervention.

Volumetric power extends beyond the three-dimensional physical world. It involves the willingness and capacity to coordinate and integrate multiple policy dimensions, including new domains and policy issues that previously lay beyond human regulation, especially where control across these multiple domains may create tensions and conflicts. One classic view of state power holds that the “manoeuvring space” created by a multiplicity of power relations gives rise to state power, for instance when the state plays interest groups off against one another. A state exercises volumetric power when it can coordinate and integrate these multiple power relations and policy dimensions in a comprehensive way, for instance by targeting the development of innovative futuristic ecosystems.

The emergence of volumetric politics in China

In China’s case, “volume” and “volumetric” are not used in official political discourse.

Beyond the academic attention it has received, China’s emerging volumetric statecraft is more clearly reflected in a range of other initiatives, directives, and political formulations. Since 2015 various official documents, directives, and practices have slowly been coalescing into a comprehensive architecture of volumetric statecraft.

Several developments have taken place at the same time: First, the increasing emphasis on “New Frontiers” (新疆域; xin jiangyu), “New Strategic Frontiers” (新战略疆域; xin zhanlüe jiangyu), “New Strategic Spaces” (新战略空间; xin zhanlüe kongjian), and “Emerging domains” (新兴领域; xinxing lingyu) is directly connected to the emergence of volumetric politics in China. Some of these terms have already become official formulations, and all of them embody the Chinese state’s increasingly volumetric statecraft. They indicate Beijing’s increasingly clear and comprehensive strategy for commanding a set of “New Territories” and “New Strategic Spaces”, effectively shifting its focus from a traditional two-dimensional view of the world to a three-dimensional, volumetric one.

In Chinese academic and political discourse, “New Frontiers” refer to those spaces beyond traditional state and land borders that are becoming relevant to the state, security, and resources sectors as well as the global order due to technological, scientific, and geopolitical developments. These include, among other things, the polar regions (Arctic / Antarctic), outer space, the deep sea, and increasingly, cyberspace and digital spaces. “New Strategic Frontiers” is often used interchangeably with “New Strategic Spaces”. The “new” refers to the relevance of these frontiers to humanity’s long-standing living and governance spaces. As technology advances, the deep sea, the polar regions, outer space, and cyberspaces are becoming new domains and resources that humanity can access and utilise.

In Xi Jinping’s speech in January 2017 at the United Nations Headquarters in Geneva, where he laid out the plan for “Building a Community with a Shared Future for Mankind”, he emphasised that “We should turn

the deep sea, the polar regions, the outer space, and the internet into new frontiers for cooperation, rather than a wrestling ground for competition”. In 2023, the Proposal of the People’s Republic of China on the Reform and Development of Global Governance further elaborated that the deep sea, the polar regions, outer space, cyberspace and digital technology, and AI are becoming new frontiers in global governance. It advocated for the principles of peace, development, inclusiveness, and collaborative governance as well as incorporating the participation, voice, and decision-making rights of developing countries. Similar references to “New Frontier” and “Emerging Domains/Areas” also appear in the Global Governance Initiative (GGI) introduced in 2025. “Governance gaps exist in new frontiers such as AI, cyberspace and outer space [...] In emerging areas, international rules should be formulated on the basis of extensive consensus.”

In addition to formulations such as “New Frontiers” and related concepts, we have also seen an expansion into new geographic domains across many policy fields, as various official Chinese documents show. One example is the Arctic, where China aims to expand its reach by upgrading research and infrastructure, as well as adapting legal approaches (White Paper on China’s Arctic Policy, 2018). In addition, there is China’s space programme (White Paper on China’s Space Program, 2021), which highlights Beijing’s expansion into extraterritorial orbit and information space as well as the development of space infrastructure (i.e. research, production, exports). Beyond the Arctic and space, other realms include cyberspace, the deep sea, the polar regions, and satellite-based infrastructures and are echoed in Chinese official speeches, White Papers, and other documents.

The second focus is the strategic strengthening of China’s data infrastructure, which had already begun with the Big Data Development Action Plan, published by the State Council in 2015. In the plan, data was already defined as a strategic resource that affects the state’s ability to govern. This

understanding has been continually extended to the domestic security realm (2016, National Cyberspace Security Strategy), the industrial complex (2017, State Council’s Guiding Opinions on Deepening the Development of Industrial Internet through Internet Plus Advanced Manufacturing), and extraterritorial control over transnational data flows (December 2020 Export Control Law of the PRC; 2021 Data Security Law of the PRC; 2025 Regulations on the Administration of Network Data Security). This goes hand in hand with the push for AI development under Xi Jinping. Even very early in his first term, Xi framed AI as a major strategic opportunity, particularly when aiming to have a first-mover advantage (2017, Notice on the Plan for the Development of a New Generation of AI). Since 2023 there have been several reports and plans that are relevant to the introduction of “AI plus” in the 15th FYP (e.g. 2023, Overall Layout Plan for the Construction of Digital China; April 2025, Politburo Study Session on AI). Among the 18 chapters of the 15th FYP, one entire chapter (chapter 4) is devoted to the construction of Digital China and to raising the level of Digital Intelligence.

The third focus is strengthening spatial and temporal control, including 3D mapping, real-time or temporally sequenced imaging, as well as early warning and dynamic disposition, mainly through the expansion of China’s Beidou Navigation Satellite System (2022, White Paper on China’s Beidou in the New Era; Overall Implementation Plan for the Construction of Real-Scene 3D China, 2023–2025, by the Ministry of Natural Resources).

Fourth is the strategic development of back-up capacities, for instance critical raw materials, physical reserves, energy security, and logistic redundancy (2024, Notice from the Ministry of Natural Resources on Improving the Implementation and Management of Mineral Resources Planning). The fifth focus is on implementing the legal controllability of these volumetric ecosystems, including security checks, export controls, data export controls, and emer-

agency measures. This can be achieved, for instance, by developing a holistic Chinese export control regime (relevant laws, among others, include: 2020 Export Control Law, 2021 Anti-Foreign Sanctions Law, 2024 Regulations on the Export Control of Dual-Use Items, 2026 Foreign Trade Law of the PRC, 2026 Regulations of the State Council on Industrial and Supply Chain Security, and 2026 Regulations of the PRC on Countering Unjustifiable Extraterritorial Jurisdiction Measures Imposed by Foreign States). This highlights that, in order to secure the Chinese architecture of volumetric statecraft, the concept of “extraterritorial reach” is already included in many Chinese directives and laws. Thus, the rules also apply to operations and foreign entities abroad.

In many ways, China’s emergence as a volumetric state contrasts with the recurring emphasis of the Chinese leadership on the importance of national sovereignty and integrity in the international context. In every official Chinese document that mentions global governance, upholding territorial sovereignty is one crucial principle. This highlights the tension and interplay between an imaginary of the nation-state as fixed and bound by its territorial borders, and sovereign practices that are increasingly complex and de-territorialised. The ability to handle such tension – and ultimately the use of various understandings of sovereignty and territory – is also an element of volumetric statecraft.

Regarding the Chinese case, volumetric power goes beyond looking at the world through the lens of a three-dimensional physical framework; it also coordinates and integrates across multiple policy issue domains and dimensions of policy actions, among which there can be tensions and conflicts. A concept in Chinese discourse that well encapsulates the coordination and integration aspects of volumetric power is 统筹 (tongchou). The term, appearing 94 times in China’s new 15th FYP (2026–2030), which was officially adopted by the National People’s Congress in March 2026, can imply “balancing, coordinate and inte-

grate, overall planning”. More specifically, it means bringing different aspects and dimensions of policy planning together to balance and coordinate between different, sometimes conflictual interests, to aim for comprehensive planning as a whole, and to reach a holistic outcome. Relatedly, the development of a set of “complex / comprehensive ecosystems” (全面/综合生态系统; quanmian/zonghe shengtai xitong) also functions in the Chinese context as one pillar of its volumetric power. Here, policy-making is meant to look at the combination of all dimensions and domains together and treat the whole as a complex and comprehensive ecosystem for policy-making and policy analysis. Referring to comprehensiveness in this context can thus incorporate seemingly obvious contradictions, for example a territorially bound understanding of state sovereignty and the unbound, de-territorialised complexity of volumetric statecraft.

The volumetric dimension in the 15th Five-Year Plan

Against the backdrop of these developments, China’s recently published 15th FYP is another key document manifesting the volumetric dimension in Chinese politics. Already in the CPC Central Committee’s Proposal on Formulating the 15th Five-Year Plan for National Economic and Social Development (referred to as “the Proposal” below) issued in October 2025, which provides the blueprint for the 15th FYP, it states that the overall goal is to “bolster national security capacities in emerging domains, including cyberspace, data, AI, biology, ecology, nuclear energy, outer space, deep sea, the polar regions, and low-altitude airspace”. These new geographic and policy domains clearly represent the volumetric dimensions of politics.

The final version of China’s 15th FYP addresses these topics and highlights related ones. First, technology and industrial upgrading is a central focus of the FYP. China is aiming to develop “strategic emerg-

ing industries” (战略新兴产业; zhanlüe xinxing chanye) and “future industries” (未来产业; weilai chanye) to serve as new engines of future growth and “new quality productive forces” (新质生产力; xinzhi shengchanli). The 15th FYP continues China’s focus on the science and technology development and industrial upgrading from the past four decades. It further defines strategic emerging industries as: next-generation information technology, new energy, new materials, intelligent internet-connected new-energy vehicles, robotics, biomedicine, high-end equipment, aviation and space technology. Future industries include quantum technology, biomanufacturing, hydrogen energy, nuclear fusion, brain – computer interfaces, embodied AI, and sixth-generation mobile communications.

In particular, the FYP contains an entire chapter on the role of digital intelligence and digitalisation of the Chinese economy and governance mechanisms. In particular, “AI+” is introduced with its own action plan in six fields: science and technology, industrial development, elevation of consumption, people’s livelihoods and welfare, governance capacity, and global cooperation. “AI+”, which is a broad and deep integration of all sectors of the Chinese economy and society, functions as both a foundation of the Chinese volumetric state and an expression of it.

The Proposal regards “high-quality growth + scientific autonomy + upgrading people’s livelihood” as the three key dimensions of the 15th FYP. One can further interpret the relation between these elements as follows: Advanced manufacturing functions as the “ballast”, the digital economy serves as an “accelerator”, and the upgrading of people’s livelihoods represents the “stabiliser”. The goal is the combination and integration of these three key dimensions.

Second, the new FYP also clearly indicates the Chinese state’s overall devotion and preparedness to construct multiple comprehensive and complex ecosystems across all major policy domains, including the new and emerging fields and domains.

To achieve these goals, it applies extensively the concept of *tongchou* (统筹), which clearly demonstrates the coordination, integration, and willingness of the Chinese leadership to establish volumetric power, among other means, by developing sets of complex / comprehensive ecosystems (全面 / 综合生态系统; quanmian / zonghe shengtai xitong) as one pillar of its volumetric power.

This is expressed, for instance, through goals such as the establishment of a “national comprehensive three-dimensional transportation network” (国家综合立体交通网; guojia zonghe liti jiaotongwang). “Li ti” (立体) here literally means “volumetric”. This specific reference to “li ti” indicates a strong preference for bringing all policy dimensions into an integrated, holistic whole, and it reflects the state’s readiness to coordinate and integrate different policy domains, including these new ones.

Relatedly, there are plans within the 15th FYP to construct a consolidated national electricity market and improve the “one national grid” (全国一张网; quanguo yizhangwang) for oil and gas dispatch.

As another example, chapter 5, section 3 of the FYP is entitled: “Improvement of the Innovation and Development Ecosystem for Industries”. The chapter presents a set of measures to create a market environment and policy system that is conducive to the incubation and growth of emerging industries. It promotes the integrated development of innovation facilities, technology research and development, and product iteration and upgrading.

On a larger point, it reflects an understanding of the party-state’s role in the new economy. The marginal effect of single-point optimisation for investment and industrial upgrading is declining. The old approach of “building roads, establishing industrial parks, and providing policy privileges” is no longer likely to bring about decisive change. For the party-state in the new economy, it is more important to carry out systemic restructuring: from finance, talent cultivation, industrial organisation, and globalisation linkages to digital infrastructure in order to form an ecosystem

that can continuously generate new enterprises and innovation. For governments at both the national and local levels, the party-state needs to do more than just develop a few industries. It must simultaneously exert efforts across multiple dimensions: financial support, talent attraction, industrial collaboration, global connectivity, and digital capabilities. This is a systemic project. The new FYP clearly demonstrates the Chinese state's understanding of such a challenge, and its comprehensive, systemic approach to it, as part of its volumetric power.

Third, the new FYP highlights an overall assessment of the international environment and, in particular, the balance between openness, development, and security. To illustrate this, it is worth pointing out the clear differences between the 14th and 15th FYPs in their assessments of the international environment. Despite some overlap, in its sections on the international environment, the 15th FYP no longer highlights that China is in a period offering "significant strategic opportunities", nor does it present the assessment that "peace and development remain the themes of our time". Instead, the section on environment for China's development in the 15th FYP starts with an emphasis on major power relations influencing the international situation. Meanwhile, risks, challenges, uncertainties, and unpredictable factors are regarded as the main theme. It is through such an assessment that coordination (or 统筹; tongchou) between "development" and "security" becomes the top priority: How to safeguard the security of the domestic market and society on the one hand, and continue targeted openness on the other? To address that challenge, the Chairman of the National Development and Reform Commission, Zheng Shanjie, recently set out four major tasks. First, focus on national economic security and diligently manage China's own affairs (which indicates a focus primarily on domestic affairs). Second, enhance the resilience and resistance of China's economic security to shocks. Third, improve the risk prevention and control system of economic security.

Fourth, strengthen security governance in emerging fields. Such an ultimate balance and coordination between "development" and "security" across multiple physical and policy domains is an illustration as well as an ultimate test of the Chinese state's volumetric power.

Impact on Europe and European politics

For Europe, the key point is that China's emergence as a volumetric state is not only about controlling and governing new physical spaces. It also concerns coordinating technology, infrastructure, law, data, security, and industrial policies into one integrated architecture of power. This has several implications for Europe and European politics.

First, the EU will face China as a rule-maker and regulatory power in both geographical and policy domains. Beijing is already very active in shaping the rules, standards, and legal frameworks for domains that are still only partly regulated internationally: outer space, the deep sea, the polar regions, satellite infrastructures, data flows, AI-enabled mapping, agentic AI, low-altitude airspace, and critical raw materials. In addition, it remains unclear how China's emerging legal framework for volumetric dimensions will interact with the European framework, particularly since the EU has often been defined as a regulatory power. For example, in relation to AI, satellite data, deep-sea mining, polar research, biotechnology, and autonomous mobility, China may promote technical standards and legal interpretations that differ from European preferences on transparency, environmental protection, due diligence, data protection, and dual-use control. European politics will therefore need to treat standards-setting bodies, research cooperation, and technical protocols as geopolitical arenas, as well as develop frameworks to interact with China directly on these matters. In this regard, Europe is now dealing with a volumetric Chinese state, which goes

beyond China's own version of a "regulatory state" in the early 2000s.

Second, China's advantages lie in coordination across policy fields. For Europe, this is politically significant because EU policy-making is still often fragmented across member states, institutions, and policy silos: digital policy, industrial policy, climate policy, security policy, trade policy, and research policy are frequently treated separately. China aims to link critical raw materials, export controls, industrial subsidies, AI development, logistics infrastructure, and data governance into one strategic ecosystem. Europe often responds with separate instruments: Critical Raw Materials Act, Chips Act, AI Act, Global Gateway, sanctions policy, competition policy. The challenge is not that Europe lacks tools, but that it struggles to coordinate them at the same speed and scale.

Third, China defends its territorial sovereignty while developing extra-territorial forms of control. This is one of the most important conceptual and far-reaching implications. China's emerging volumetric statecraft increasingly marks the tension between Beijing's strong emphasis on national sovereignty and territorial integrity, and its increasingly de-territorialised sovereign practices in data, infrastructure, export controls, supply chains, and new strategic spaces. For European politics, this creates a dilemma. China may insist on a Westphalian, "flat" understanding of sovereignty when its own territory and interests are concerned (including with regard to international conflicts and wars), while simultaneously developing volumetric forms of sovereignty that extend through technical systems, legal reach, supply-chain dependencies, and infrastructure abroad. For example, Chinese data security laws, export controls, and supply-chain security regulations can affect foreign companies operating outside of China if they depend on Chinese inputs, platforms, data, and production networks. This means that European firms may be subject to Chinese regulatory power even when they are formally located within European jurisdictions.

Europe needs a three-dimensional "volumetric" China strategy

For Europe, China's emergence as a volumetric state means that Chinese power will increasingly operate through the integration of technological infrastructures, legal regimes, spatial governance, and industrial ecosystems. This can create new opportunities for cooperation in emerging industries, but it also generates new vulnerabilities, as European actors may become embedded in Chinese-controlled standards, data flows, satellite infrastructures, supply chains, and regulatory frameworks. As Elisa Hörhager rightly points out, "The old division of labor — 'China makes; the West researches, designs, markets and sells' — no longer holds." Europe needs to be prepared for a China that aims to control the market of future industries, particularly through the development of innovative, technological, and volumetric ecosystems. The EU's China policy therefore needs to move beyond a two-dimensional understanding of territory and sovereignty and develop a more integrated — in other words volumetric — approach to the politics of depth, height, infrastructure, and connectivity. For instance, when it comes to reducing strategic dependencies on China, it is not the commodities themselves that matter. Instead, the spaces in which dependencies are produced also become relevant, in particular who is in control of these spaces — from below the surface to orbit.

The practical lesson is that the EU should not view its China policy only through single issues such as trade, human rights, or security concerns. It needs to understand how these domains are connected through infrastructure, law, technology, data, and spatial governance. A European response could include shifting capacities to the respective Directorates-General (DGs) to develop a sustainable monitoring system for Chinese rule-making in outer space, the deep sea, the polar regions as well as in data flows and AI governance. It also means strengthening European coordination from the DGs to the Presidential Cabinet in in-

dustrial, security, digital, and foreign policy. Furthermore, it entails the reduction of strategic dependence on critical raw materials, satellite systems, cloud infrastructure, and supply chains. It also means investing in Europe's own mapping, sensing, space, maritime, and data infrastructure, and treating technical standards as political instruments, not neutral engineering questions.



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Stiftung Wissenschaft und
Politik
German Institute for
International and
Security Affairs

Ludwigkirchplatz 3–4
10719 Berlin
Telephone +49 30 880 07-0
Fax +49 30 880 07-100
www.swp-berlin.org
swp@swp-berlin.org

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*Dr Nadine Godehardt is a Senior Associate in the Asia Research Division at SWP.
Dr Zhang Xin is Associate Professor at the School of Politics and International Relations,
East China Normal University (ECNU) in Shanghai.*