

Planning Reform and Disciplinary Response Oriented Toward Intensive Development: Practice Based on the Spatial Governance Transformation of Guangzhou as a Megacity

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Abstract

In the new era, megacities must adhere to an intensive and quality-oriented development path, reshape governance logic through planning reform, and cultivate new drivers and comparative advantages for urban development. Taking Guangzhou's urbanization process and planning reform as a representative case, this article reviews the evolution of planning in Guangzhou from planned, growth-oriented and expansion-oriented modes to a governance-oriented mode. It analyzes the adaptive relationships among planning tasks, institutional functions, talent demand and disciplinary development. On this basis, it proposes a spatial governance transformation framework for the era of intensive development, structured around three orientations: implementation, integration and market responsiveness. Drawing on recent practice in Guangzhou, the article examines the shift from preparing good plans to using plans well, from stepwise management to integrated governance, and from government control to market allocation. It argues that planning should serve as a "conductor" for the market-based allocation of factors, enabling the precise identification and efficient operation of spatial value. From the perspectives of planning administrators and users, the article further suggests that the planning discipline should transform toward an operation-oriented, interdisciplinary and inclusive knowledge system, and cultivate composite professionals who understand space, industry, finance, operations and policy, thereby providing intellectual support for the high-quality development of cities.

Keywords

intensive development; megacity; spatial governance transformation; territorial spatial planning; disciplinary development

Introduction

The 2025 Central Urban Work Conference noted that China's urban development has shifted from large-scale incremental expansion to a stage that gives equal weight to improving the quality and efficiency of existing stock. Building a modern people's city through intensive development has therefore become a core task in the current stage of urban transformation [1]. Existing studies have interpreted the meaning of intensive urban development from several angles: compact and efficient spatial growth [2-3], people-oriented development [4-5], optimization of spatial structure and governance upgrading [6-7], and transformation from incremental expansion to quality and efficiency, from physical construction to coordinated city-making, and from resource-consuming scale growth to development driven by quality, innovation and mobility-related welfare [8-9].

These debates suggest that intensive development involves four major shifts. First, the value focus changes from "investing in land" to "investing in people" [5]. Second, spatial logic changes from incremental expansion to intensive quality improvement [6]. Third, governance thinking changes from short-term development and construction logic to long-term operation and governance logic [7-8]. Fourth, the growth model changes from exchanging land for growth to exchanging innovation for value,

with market and social innovation becoming important sources of urban vitality [9-11]. In this context, planning must move beyond its traditional role as a tool for incremental spatial expansion and become a governance instrument for improving quality, coordinating interests and operating cities over the long term.

Research on planning responses to high-quality and intensive development has addressed the reconstruction of planning logic [12-15], technical innovation [16-17], system building [18-19], institutional change [20], and breakthroughs in implementation pathways [11,21]. Yet relatively few studies have examined these issues from the position of planning managers and everyday planning users. The implementation system, the integration of planning and land policies, and the response to market actors remain insufficiently theorized. The feedback loop among theory, practice and disciplinary renewal also remains weak. Guangzhou provides a valuable case through which to examine these questions. It is China's only municipal-level pilot city for territorial spatial planning reform, and it faces the typical pressures of a megacity with a service population of about 24 million. In October 2025, Guangzhou adopted the first local territorial spatial planning regulation among China's megacities, offering a local model for national-level spatial governance reform. Based on Guangzhou's planning-management transition, this article develops a spatial governance framework and a corresponding disciplinary knowledge system for intensive development in Chinese megacities.

1 Evolution of Urban Planning Tasks and Institutional Functions in Guangzhou Since the Founding of the People's Republic of China

Since the founding of the People's Republic of China, the focus of planning work in Guangzhou has evolved dynamically with the needs of urbanization. Planning tasks have moved from implementing the national economic plan to supporting economic growth and regional balance, and now to pursuing high-level protection and high-quality development. Correspondingly, planning functions have passed through several modes: planned planning serving industrial production, growth-oriented planning serving spatial expansion, and expansion-oriented planning supporting rapid urbanization [22-23]. In the stage of intensive development, Guangzhou's planning work is transforming toward governance-oriented planning. The center of planning management is shifting from plan preparation to plan implementation, urban management and urban operation. This transformation shows that the focus of urban planning governance has consistently responded to socioeconomic development and urbanization needs, while interdisciplinary integration and multi-field talent cultivation have become increasingly important.

1.1 1949-1977: Planned Planning Serving Industrial Production

From the early years of the People's Republic to the eve of reform and opening up, the main task of urban development was to implement the national economic plan, serve industrialization, restore normal urban operations and build production-oriented cities. Guangzhou prepared thirteen versions of its urban master plan. These plans can be understood as extensions of the national economic plan: they focused on the layout of industrial land and major infrastructure, arranged four large industrial zones on the urban periphery, improved transport facilities around port construction, and promoted development along rivers. Planning in this stage thus clearly served production [22].

Institutional functions were dominated by construction-project management, forming a planned-planning model aligned with industrial production. In 1953, planning functions were located in the planning group of the Urban Construction Committee; in 1958, a separate planning and construction

committee was established; and in 1977, Guangzhou created an independent Urban Planning Bureau. Planning responsibilities gradually concentrated on urban planning, capital construction management and surveying, with emphasis on industrial project siting and basic municipal infrastructure. Because planning work centered on engineering construction and project location, early staff in the municipal planning bureau were overwhelmingly trained in engineering, accounting for nearly 80 percent, while management and law together accounted for only about 4 percent. The planning discipline at that time relied mainly on architecture and engineering, with knowledge centered on urban planning and urban construction, and was therefore a typical engineering profession.

1.2 1978-2000: Growth-Oriented Planning Serving Spatial Expansion

After reform and opening up, the focus of urban development shifted to economic construction, and both population size and built-up area expanded rapidly. Guangzhou's planning during this period focused on guiding spatial expansion and serving urban construction. The city prepared its first State Council-approved master plan, covering 1984-2000, and China's first strategic plan in 2000. These plans proposed the strategy of "expanding southward, optimizing the north, advancing eastward and linking westward", laying the foundation for a polycentric and networked spatial structure and promoting a leap in the urban spatial pattern from "Baiyun Mountain and the Pearl River" toward a broader "mountain-city-field-sea" configuration. From 1984 to 2000, Guangzhou's permanent population increased by more than 100,000 people annually, and its built-up area expanded by about 6 square kilometers per year.²

Planning management became more standardized and more integrated, involving socioeconomic development, urban and rural construction and land resource management. This was a growth-oriented planning mode serving spatial expansion. With the establishment of the State Land Administration and later the Ministry of Land and Resources, Guangzhou created a Municipal Land Bureau in 1986 on the basis of the planning bureau, gradually integrating real estate and mineral-resource management functions to secure land-resource control and supply. In 1992, the Municipal Land Bureau and the Housing Administration worked in the same office arrangement, forming a parallel planning-and-land administration model. The planning bureau focused on plan preparation and planning management, while the land bureau focused on land planning and land-use management. In terms of talent structure, engineering remained dominant, accounting for nearly 60 percent, but new talent from geography, economics, management and law was introduced; management and law increased to about 15 percent. At this stage, the discipline of urban planning became more independent from architecture and engineering, extended into design, housing and heritage conservation, and began to integrate land-resource management, geography and economics.

1.3 2001-2018: Expansion-Oriented Planning Supporting Rapid Urbanization

With the deepening of tax-sharing and housing-system reforms, China entered a stage of rapid urbanization, in which both expansion and quality improvement became priorities for metropolitan planning and construction. From 2001 to 2018, Guangzhou's permanent population grew by about 500,000 people each year, and its built-up area expanded by around 46 square kilometers annually.² Continuous expansion, however, also made "big city disease" increasingly visible. Against this background, Guangzhou added an "internal adjustment" strategy and moved toward a stage of high-quality development characterized by a polycentric network structure.

During this period, planning functions shifted from urban to urban-rural coverage, from single-plan management to the integration of planning and land administration, and then to comprehensive control over natural resources across the entire territory. This completed a transition from procedural administrative management to closed-loop, full-process and sector-based refined management. Talent needs also expanded toward rural planning, "multi-plan integration" and related fields, increasing demand for knowledge of agriculture, rural areas, farmers and land management. By 2012, the share of talent trained in science, law and management had risen above 30 percent. In disciplinary terms, planning began to focus on regional coordination, whole-territory spatial management and multi-plan integration, leading to the development of urban and rural planning as a first-level discipline and emphasizing an interdisciplinary knowledge system centered on urban and rural planning while integrating geography, management, ecology and other fields.

1.4 Since 2019: Governance-Oriented Planning Pursuing High-Quality Development

Since the 19th National Congress of the Communist Party of China, China's urbanization has entered a new stage of high-quality development, and urban growth has shifted from incremental expansion to stock optimization and intensive upgrading. From 2020 to 2024, Guangzhou's permanent population increased by only about 80,000 people per year.² In response to problems such as excessive pursuit of scale, over-concentration of functions and excessive population agglomeration in megacities, Guangzhou prepared its first master plan coordinating all territorial space and all elements. With strict control over incremental land and optimization of the whole territorial space as its core, the plan establishes an agglomerated development pattern of "one belt, one axis, three cores and four poles" and deepens integrated territorial spatial governance.

Planning institutions have also turned toward multi-plan integration and have begun to release the full-chain governance advantages of the "two unifications" in natural-resource administration. Guangzhou Municipal Planning and Natural Resources Bureau has shifted its work focus from plan preparation to high-quality implementation. In 2025, it adjusted its internal offices and optimized the ratio between planning-preparation offices and implementation-management offices from 6:4 to 4:6.³ Four non-approval functional offices, including reform, marine economy, industry services and urban-rural integration, were newly established to strengthen policy integration, project planning and enterprise services. At the same time, the bureau promoted staff rotation between planning and land administration positions to cultivate multi-field professionals capable of whole-territory, all-factor and full-process planning governance. Engineering talent now accounts for about 40 percent, while science, law and management together exceed 40 percent and economics reaches about 5 percent. This adjustment reflects the urgent demand for stronger management effectiveness, economic services and people- and enterprise-oriented implementation, and confirms the inevitable transformation of territorial spatial governance toward a more comprehensive and composite model.

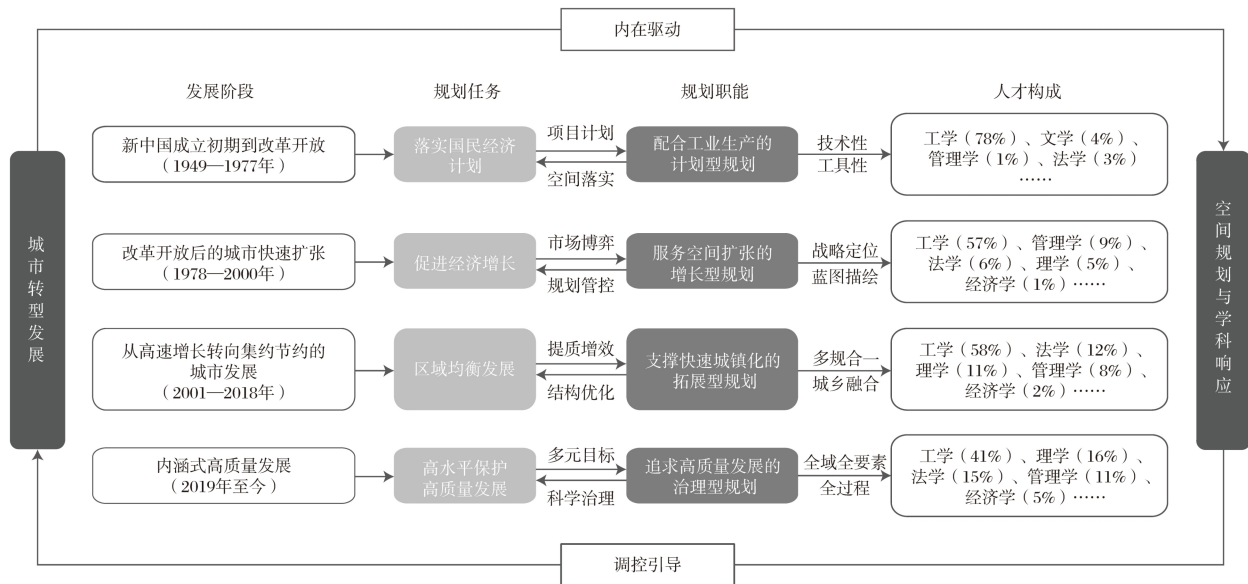


Figure 1 Evolution of planning tasks and institutional functions across urban development stages

At this stage, the planning discipline is paying closer attention to the full-factor and full-process operation of governance. Some universities have developed territorial spatial planning programs on the basis of urban and rural planning, incorporating knowledge from natural-resource management, agriculture, forestry, surveying and mapping engineering, marine studies and spatial information technology.

2 Transformation Framework for Urban Spatial Governance in the Era of Intensive Development

Since the founding of the People's Republic, China's urban development has successively moved through the construction of production-oriented cities, comprehensive economic development and spatial expansion, and a stage driven by rapid urbanization in which expansion and upgrading were pursued simultaneously. It is now entering an intensive development stage. The drivers of urban development have changed profoundly, bringing comprehensive shifts in governance thinking, spatial logic, value orientation and growth models.

The logic of spatial governance must adapt to this new stage. It should move from supply-side spatial growth toward demand-side governance and operation. Through three transformations, namely implementation orientation, integration orientation and market orientation, planning can more precisely support high-quality socioeconomic development. First, implementation orientation responds to the shift from development logic to operation logic: the focus of planning must move from plan preparation to implementation management so as to support sustainable urban operation. Second, integration orientation responds to the shift from incremental expansion to intensive quality improvement: deep integration between planning and land policies can release the potential of resource factors and enhance spatial value. Third, market orientation responds to the shift in value from "investing in land" to "investing in people" and in growth from "land-for-growth" to "innovation-for-value": planning must adapt to changing enterprise and resident needs and improve the efficiency of spatial-resource allocation through precise supply-demand matching.

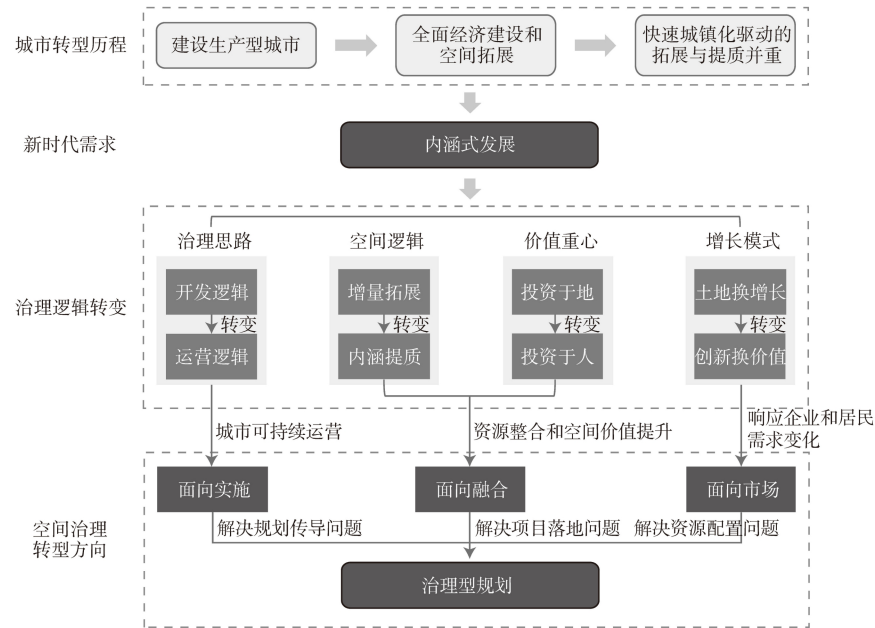


Figure 2 Transformation framework of urban spatial governance in the era of intensive development

Through these three orientations, a framework for governance-oriented planning in the era of intensive development can be established. Its practical purpose is to implement plans well, coordinate resources well and link markets well, thereby transforming planning from a technical tool into a governance instrument and providing a framework for modernizing megacity spatial governance under intensive development.

3 Practice of Spatial Governance Transformation in Guangzhou as a Megacity

Megacities commonly face weak plan transmission, inefficient factor allocation and inadequate supply-demand matching. Based on the framework of the three orientations, Guangzhou has taken the lead in empirical exploration.

3.1 Implementation Orientation: From Preparing Good Plans to Using Plans Well

As urbanization enters its middle and later stages, the center of planning management must shift from blueprint-style plan preparation to plan implementation and urban operation, meeting the new requirements of diversified spatial governance and resource optimization. To ensure that planning blueprints are transmitted to every department, project and parcel, Guangzhou has built a planning implementation and transmission system characterized by vertical connection, horizontal coordination, orderly implementation, precise feedback and closed-loop operation. Led by the territorial spatial master plan, the city optimizes the vertical transmission mechanism between master plans and detailed plans, strengthens horizontal coordination across special plans, coordinates planning timeframes with five-year plans and annual plans, integrates urban design into the entire planning process, reinforces the feedback function of monitoring, health examination and evaluation, and establishes three supporting foundations: spatiotemporal data, laws and policies, and technical standards. This closed loop of plan preparation, implementation, evaluation and feedback, supported by legislative safeguards, hierarchical transmission, integrated evaluation and dynamic feedback, helps ensure plan implementation and provides a scientific and standardized basis for urban governance.

3.1.1 Legislative Safeguards: Launching the First Spatial Planning Legislation for a Megacity

Territorial spatial planning governance currently faces fragmented legislation and the absence of a unified overarching legal framework. Guangzhou has more than 70 existing regulations related to spatial planning and resource allocation. Because these regulations were issued in different contexts and regulate different matters, they are not effectively connected, leading to conflicts among plans and to plans that remain suspended without implementation. These problems seriously constrain the operation of the territorial spatial planning implementation and transmission system.

Guangzhou has insisted on unifying reform and the rule of law. It took the lead in launching China's first spatial planning legislation for a megacity and adopted the Guangzhou Territorial Spatial Planning Regulations. The regulations legalize Guangzhou's experience in multi-plan integration, establish a unified statutory planning system and planning-governance rules, and ensure that territorial spatial planning is systematic, coordinated and coherent. They also help address recurring planning instability in megacity spatial governance and offer a reference for local legislation.

The regulations respond to the need for life-cycle management of territorial spatial planning. Through general legislative authority, they integrate the logic of the Land Administration Law and the Urban and Rural Planning Law, connect superior laws with subordinate regulations, and coordinate special regulations at the same level. In this sense, they function as a "minor basic law" guiding urban-rural construction and spatial governance. The management loop is extended from plan formulation, implementation and supervision to the whole process of spatial governance. The regulations establish a whole-territory, all-factor control system "from mountain tops to the sea" and introduce innovations such as mixed land supply and the "three mergers" for optimizing statutory approval procedures, thereby significantly improving the standardization and efficiency of spatial governance.

3.1.2 Plan Transmission: Building a Master-Special-Detailed and Time-Sequenced Implementation System

As a megacity with a complete set of natural elements and marked internal spatial differences, Guangzhou requires a highly precise planning system. It has therefore built a transmission system linking master plans, special plans, detailed plans and time-sequenced implementation. Its core logic is to establish multidimensional transmission across space, time and factors, so that spatial factors are optimally allocated and the timing of plan implementation is effectively linked. This forms a planning transmission framework with megacity characteristics.

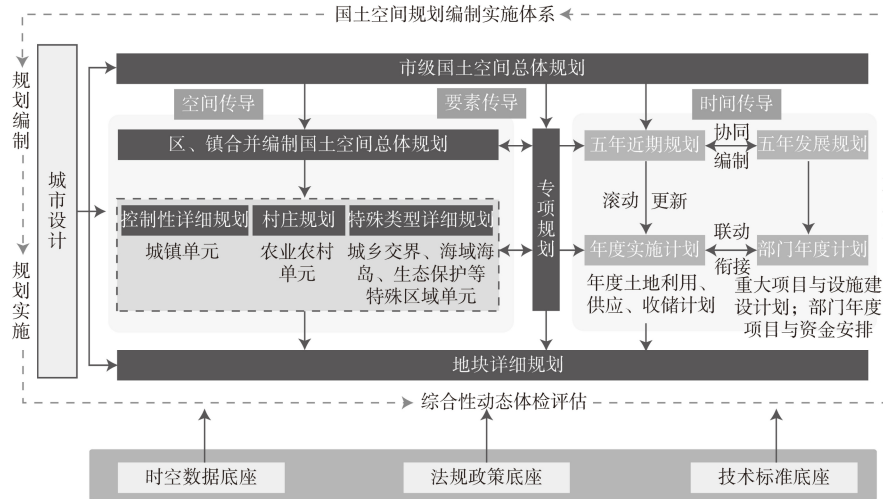


Figure 3 Territorial spatial plan formulation and implementation: the plan and policy transmission system

First, Guangzhou has established master-special transmission institutions such as plan-preparation lists and spatial chapters, ensuring that elements from special plans are incorporated into the "one map" system of territorial spatial planning. The city has innovated a catalog system for preparing special territorial spatial plans, clarified catalog-management rules, and refined the preparation requirements, review standards and database-entry norms for different special plans. It has also explored templates for spatial chapters in special plans, defining the preparation depth of near-term land-layout schemes according to detailed-plan requirements and standardizing workflows for review, approval, database entry and online publication.

Second, Guangzhou has established a master-detailed transmission system based on correspondence of administrative powers, unit-based coordination, and layered and classified management. It has moved away from the previous approach of preparing detailed plans at parcel depth in a single step. Instead, it uses detailed planning as an important layer for plan transmission and implementation feedback. Aligning with the jurisdictional boundaries of towns, subdistricts and industrial parks, Guangzhou has divided more than 1,000 detailed-planning units into three broad categories: urban, agricultural-rural and special areas. Detailed plans are prepared by category according to the principles of total-quantity constraint, flexible control and dynamic need-based preparation. Within the urban development boundary, four types of overlay units are established: key development, urban renewal, historic conservation and strategic reserve. These coordinate intensive use of incremental and stock land and link near-term and long-term development. Outside the development boundary, special units such as urban-rural integration areas, sea areas and islands are delineated to strengthen whole-territory resource control and spatial upgrading through differentiated strategies.

Third, Guangzhou uses near-term implementation plans and annual plans to coordinate projects, land and funds, reserving a "spatial budget". In response to frequent factor flows and uncertain project implementation in a megacity, it connects five-year near-term planning, five-year development planning, annual implementation plans, annual departmental plans, land use, land supply, land banking, major

projects and facility construction plans. This improves the coordination between territorial spatial planning and actual development arrangements.

Fourth, Guangzhou has established integrated evaluation and dynamic feedback mechanisms. Integrated monitoring, health examination and evaluation are both a scientific basis for plan adjustment and a key lever for continuously improving governance rules. To overcome overlapping indicators, inconsistent standards and fragmented mechanisms across existing evaluation systems, Guangzhou has developed a comprehensive and dynamic mechanism for territorial spatial planning implementation evaluation. Under high-level cross-departmental coordination, different spatial monitoring and evaluation needs are incorporated into one framework, forming a comprehensive indicator pool and modular evaluation model. This approach addresses multi-headed evaluation and data fragmentation, while supporting the positive optimization of planning, policy making and departmental implementation.

3.2 Integration Orientation: From Stepwise Management to Integrated Governance

The key to integrated governance is to move from blueprint-style planning to policy-integrated governance. Planning must respond to new demands brought by new quality productive forces and demographic change, use changes in demand to define policy orientation, and connect spatial policy with planning intention so that factors can be precisely adapted. Guangzhou has actively promoted the deep integration of planning, industry and policy. It has issued 37 policies serving the whole life cycle of industrial land, covering stronger planning leadership, planning support, diversified land supply and optimized construction services. These policies optimize the entire process of industrial land governance and enable a more precise match between resource factors and industrial development needs.

3.2.1 Linking Policy and Planning to Promote Precise Factor Adaptation

In the refined management of industrial space, Guangzhou uses the more than 600 square kilometers of industrial block lines delineated by planning as a carrier for differentiated land policies. It has developed four policy toolkits: stability, agglomeration, capacity expansion and flexibility. These tools respond to the spatial needs of new quality productive forces. Through graded control and dynamic optimization based on a balance between reduction and compensation and on adjustment only after compensation, Guangzhou stabilizes the bottom line of industrial space. It has promoted a shift in the approval of industrial land acquisition and storage from project-based approval to park-based approval, significantly strengthening industrial agglomeration. It has raised the floor-area ratio of industrial land to 2.0-4.0 at the industrial-block scale to meet the three-dimensional spatial needs of new industries. It has also built a menu-style mechanism for diversified land supply, including long-term lease and flexible-term conveyance, and has innovated policies for comprehensive industrial land, or MAB, and mixed secondary- and tertiary-industry land, allowing flexible use conversion to meet the functional needs of new business models and the full-cycle development of enterprises.

3.2.2 Coordinating Control and Allocation to Release the Value of Stock Land

Stock space is characterized by mixed functions, complex property rights and high development uncertainty. It therefore requires greater flexibility in spatial control and resource allocation, as well as stronger compatible-control and market-based allocation mechanisms, so that land value can be better released. In recent years, Guangzhou has issued a package of policies, including 31 measures for the market-based allocation of land factors and the "1+11" guidelines for low-efficiency land redevelopment. These policies propose a series of compatible-control measures that provide operational flexibility for activating stock space and releasing the value of spatial assets.

For example, to activate stock commercial and office space, Guangzhou has relaxed the conditions for municipal state-owned enterprises to bring self-owned commercial and office properties into the leasing market, and supports the conversion of stock commercial and office buildings in industrial blocks and around rail stations into affordable rental housing, balancing market-based allocation with livelihood needs. To tap the value of underground space, the city has promoted reform of layered rights confirmation for underground garages and encouraged reserved spaces at rail stations to provide commercial and convenience facilities, thereby addressing ownership difficulties and motivating social capital. In low-efficiency land redevelopment, Guangzhou has built an innovation toolkit combining general policies with district-specific policies. It clarifies 12 application scenarios, including land-use compatibility, land-price calculation and land replacement, and uses precise, small-entry interventions to solve implementation bottlenecks. In the land-replacement scenario, for instance, it clarifies scope, handling conditions and principles, and simplifies approval procedures, thereby helping resolve land fragmentation in practice.

3.3 Market Orientation: From Government Control to Market Allocation

In the past, the market was characterized by a supply-side, seller's-market logic. Resource allocation depended mainly on government-led binding plans, emphasizing rigid indicators and land-use control. Today, the market is gradually shifting toward a demand-side, buyer's-market logic. Planning management therefore needs to move from traditional rigid constraint toward dynamic adaptation and market service. Planning should function as a negotiation tool between government and market, working from both supply and demand, breaking information barriers, linking the two sides more precisely and achieving more efficient resource allocation.

3.3.1 Serving Demand: Building Supply-Demand Consultation Platforms and Displaying Planning and Resource Information

On the demand side, information barriers and fragmentation between planning and the market increase the cost for enterprises to obtain parcel information and lengthen land transaction and approval cycles. This produces the dual problem of projects waiting for land and land remaining idle. From the perspective of new institutional economics, market failure caused by adverse selection under information asymmetry and by excessive transaction costs is the core obstacle to efficient land-resource allocation. To address this problem, Guangzhou has used its geographic information center as support to integrate planning, land and application-scenario data, building two platforms: the Land Investment Supermarket and Guanghaihui. Through multidimensional information disclosure and transaction-process optimization, these platforms enable precise supply-demand matching.

The Land Investment Supermarket reduces asymmetry through information integration and lowers transaction costs through process redesign. In information disclosure, it moves beyond the traditional point-to-point model of land conveyance by integrating basic information on parcel location, planning indicators and ownership status, and by adding industrial-access requirements, input-output requirements and surrounding market data. Through VR panoramas and online Q&A, it provides a panoramic display of information and breaks enterprise information barriers. In transaction-cost optimization, intelligent matching algorithms reduce search costs, standardized processes shorten negotiation cycles, and links to government service systems allow approvals to be handled online in parallel. This substantially reduces full-process transaction costs and promotes the transformation of land supply from passive conveyance to proactive adaptation.

3.3.2 Serving Supply: Addressing Market Bottlenecks and Strengthening Proactive Services

On the supply side, enterprise development and resident needs are constantly changing. Planning must move from passive approval to proactive service, continuously tracking bottlenecks in enterprise development and livelihood improvement and strengthening full-chain services. In recent years, Guangzhou has issued eight batches of 203 enterprise- and resident-friendly measures, covering the entire business chain from planning approval, land supply and construction application to real-estate registration.

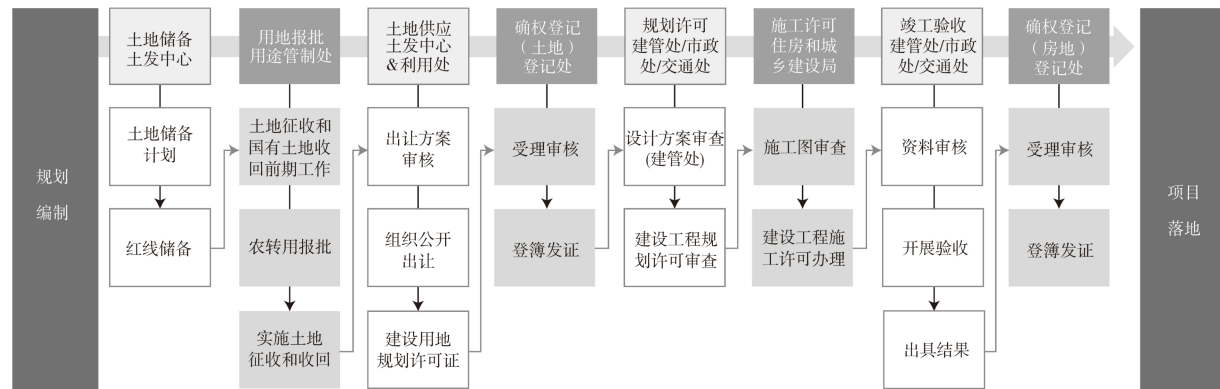


Figure 4 End-to-end workflow from planning formulation to project implementation (social investment projects)

For example, to help enterprises seize market opportunities, Guangzhou has implemented a "five certificates issued together" model and normalized the practice of allowing projects to start construction upon land acquisition. Planning permits, construction permits and pre-construction supporting procedures are advanced simultaneously, greatly shortening the early project stage. In the approval process, the city has promoted one-stop online handling, opening a fast track for project construction. Through online sharing of data and materials, online solicitation of departmental opinions and online acquisition of approval results, it has enabled parallel interdepartmental approval and saved enterprises two to three months. In addition, to solve livelihood problems in batches and with greater efficiency, Guangzhou pioneered centralized approval for contiguous elevator-installation schemes in existing residential buildings. The process has shifted from owners applying for elevator installation to the government proactively providing contiguous elevator-installation schemes. District elevator offices coordinate the preparation of these schemes, benefiting more than one million residents.

4 Reflections on the Development of the Planning Discipline in Response to the Needs of the Times

Looking back at history and planning-reform practice, the planning discipline has always resonated with the destiny of the country and the themes of the times [25]. It has experienced four stages: independent development within the engineering system, engineering-led multidisciplinary linkage, multidirectional expansion, and multidisciplinary integration.

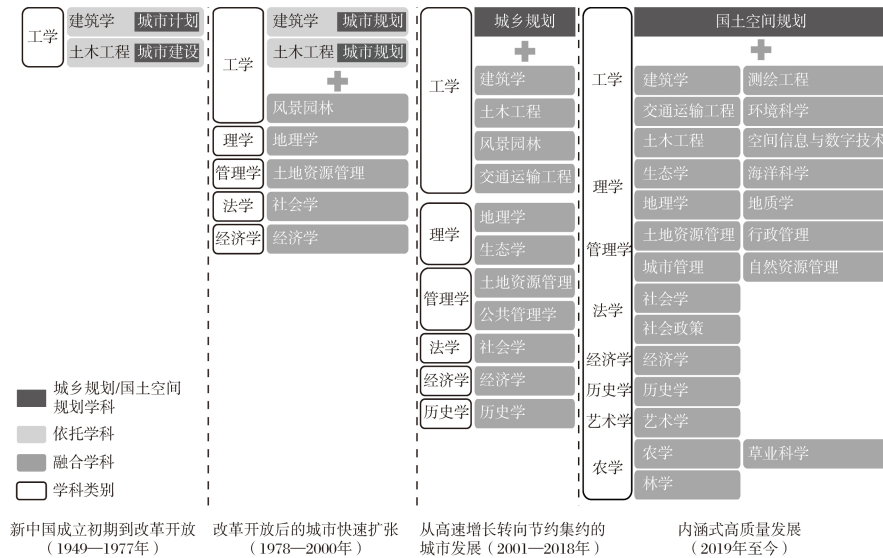


Figure 5 Evolutionary trajectory of the knowledge system in planning

Facing the needs of intensive development and the integrated governance implied by the "two unifications", the discipline must grasp the five shifts in urban development, deepen multi-plan integration, and transform toward operation-oriented, interdisciplinary and inclusive forms. It should cultivate "five-understanding" composite professionals who understand space, industry, finance, operations and policy, thereby injecting sustained momentum into high-quality urban development.

4.1 Operation-Oriented Discipline: From Guiding Construction Arrangements to Supporting Urban Development and Operation

To respond to the implementation-oriented transformation of spatial governance, planning must adapt to the critical period in which cities pursue stock-based quality improvement and intensive development. The focus of urban development is shifting toward activating stock assets, cultivating industrial ecosystems and maintaining long-term fiscal balance. The planning discipline urgently needs to move beyond blueprint-style city-making and turn toward sustainable city operation. It should strengthen core knowledge modules in urban economics, project operation and fiscal management, and focus on practical problems such as fiscal sustainability and full-process project control in planning implementation and operation. In talent cultivation, urban-operation professionals should become a core objective. They should be able to coordinate government, market and social actors, master the logic and pathways of transforming resources into assets and capital, and possess the practical capacity to solve operational problems. This will better match the new era's demand for refined urban operation.

4.2 Interdisciplinary Discipline: A Cross-Field Knowledge System Integrating Spatial Governance and Land Policy

To respond to the integration-oriented transformation of spatial governance, planning must strengthen the policy adaptability of territorial-space development, protection and use through whole-territory resource coordination and policy-integrated governance. The discipline should be oriented toward the integration of spatial governance and policy, combining knowledge from land management, surveying and mapping geography, public policy and ecological security. It should build a framework that covers planning implementation, resource management and policy optimization, forming an interdisciplinary

discipline with clear professional characteristics. In talent cultivation, both specialists and generalists are needed. On the one hand, the discipline should deepen core technologies such as digital territorial spatial governance and ecological restoration, cultivating technical specialists. On the other hand, it should train composite governance professionals capable of coordinating spatial layout, policy making and implementation management. Stronger practical interaction with government management will provide comprehensive talent support for the modernization of urban governance [26].

4.3 Inclusive Discipline: Oriented Toward What People, Enterprises and Society Can Perceive

To respond to the market-oriented transformation of spatial governance, urban governance must return to human-centered values. Public needs, industrial development and social benefits should run through the whole process of spatial governance, and spatial rights and benefits should be shared inclusively. Disciplinary development should be oriented toward what people, enterprises and society can genuinely perceive. It should incorporate knowledge systems such as social surveys and spatiotemporal behavior analysis, strengthen training in fieldwork and multi-actor consultation, and move from technology-led planning toward inclusive service. Talent cultivation should focus on combined capacities in social investigation, coordination and communication, and data analysis. It should cultivate governance-oriented planners who can accurately identify enterprises' factor-allocation needs, coordinate the interests of multiple actors and mobilize social participation, thereby supporting equalized public services and spatial justice.

5 Conclusions and Prospects

In the era of intensive development, the spatial governance transformation of megacities is a key issue in urban studies and is important for advancing Chinese modernization. Since the founding of the People's Republic, Guangzhou's spatial governance transformation has consistently adapted to the changing drivers of urban development. It has moved through four stages: planned planning, growth-oriented planning, expansion-oriented planning and governance-oriented planning. This experience has broader relevance for China. Based on Guangzhou's spatial governance transition toward intensive development, and from the perspective of planning managers, this article proposes a governance-oriented planning framework built around implementation orientation, integration orientation and market orientation. It helps fill gaps in existing theoretical research and forms a framework for spatial governance transformation under intensive development. The Guangzhou case also demonstrates the feasibility of the three orientations and offers reference for planning transformation and governance-effectiveness improvement in China's megacities.

On the basis of these three governance-transformation pathways, the article further discusses the future development of the planning discipline from the perspective of planning managers. It argues that the discipline should transform toward operation-oriented, interdisciplinary and inclusive forms, and should cultivate "five-understanding" composite professionals who understand space, industry, finance, operations and policy. These reflections can inform reforms of planning education in Chinese universities.

Looking ahead, cities will face rising complex crises and uncertainty, the impact of the AI technological revolution and global climate change. Planning should therefore help build a more forward-looking, systematic and human-centered "new planning" framework [27]. Oriented toward the construction of modern people's cities, it should pay greater attention to changes in urban development modes and

drivers, the sustainable operation of spatial assets and the reshaping of planning values, thereby empowering the construction of urban spatial governance systems.

Notes

1. Guangzhou Municipal Government website. "A three-trillion-yuan city: Guangzhou recreates the code of traffic flow." (2024-10-15) [2025-11-08]. https://mp.weixin.qq.com/s/HsTQHCofaroe2ty2I-zZYw?color_scheme=light.
2. Guangzhou population data are from statistical yearbooks; built-up-area data are from the Guangzhou Statistical Yearbook, the website of the Municipal Housing and Urban-Rural Development Bureau, and the website of the Municipal Planning and Natural Resources Bureau.
3. The "planning-management ratio" refers to the ratio between planning-preparation offices and implementation-management offices in the internal office structure of Guangzhou Municipal Planning and Natural Resources Bureau. The data are from the bureau's official website. Planning-preparation offices mainly include the general planning office, district planning management office and urban design office involved in survey and monitoring, spatial planning and use control. Implementation-management offices mainly include the marine resources management office, industry services office, urban-rural integration office, farmland protection and ecological restoration office, law-enforcement supervision office and policies and regulations office involved in resource security, development and utilization, protection and restoration, law enforcement supervision and reform policy.

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