

## “融合”——城市轨道交通发展的关键路径

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“智慧城轨”和“绿色城轨”已成为行业共识并被广泛实践,与此同时,“融合城轨”和“融合发展”在近一年来被频频提及,特别是在2023年的几项标志性工作后,已经呈呼之欲出态势。一是国家发展和改革委员会2023年4月在重庆召开了“城市群都市圈多层次轨道交通融合发展经验交流现场会”;二是受国家发展和改革委员会委托,中国城市轨道交通协会承担的“城市轨道交通多元融合可持续发展模式和路径研究”于2024年1月顺利结题,该课题得到包叙定创始会长亲自指导,是在全行业调研的基础上完成的;三是“融合发展”被确定为将于2024年6月召开的“城市轨道交通领导人峰会南京年会”的主题。

“融合”之所以会成为城市轨道交通发展的关键理念和关键路径,主要是基于以下5个方面。

首先是因为行业发展到现阶段,可持续发展成为焦点。“智慧”和“绿色”当然是其组成部分,但若为解决财务等方面的问题则需要相适应的系统性解决方案。经历了半个多世纪的发展后,截至2023年12月31日,我国内地城市轨道交通运营总里程达11 232 km,对城市高质量发展、引领城市空间优化、引导城市绿色出行等发挥了重要作用。但也产生了一些发展中的困惑、不平衡,如客运量增长缓慢、运输效率和效益不高、对政府补贴依赖度高、财务可持续性不足以及发展动能偏弱等。

二是结合行业需求和特征对习近平总书记指示的具体落实。习近平总书记2019年在视察北京大兴机场线时指出:要构建综合、绿色、安全、智能的城市交通系统。“融合发展”本质上是构建综合系统。

三是对国家发展和改革委员会等部门政策的落实。国家发展和改革委员会2004年就提出构建综合交通体系,在后续发布的城市轨道交通规划建设意见、都市圈市域铁路意见等一系列文件中,都明确提出要“融合发展”。

四是城市轨道交通系统发展、进化到一个阶段的必然选择。城市轨道交通系统是大系统、复杂系统,其发展遵循系统发展规律。初级阶段是向结构化、专业化要效率,但过度专业化就会形成壁垒,就必然会产生耗损。在现阶段,需要各子系统相互渗透、促进、包容,提高系统整体协调性,使局部服从整体需求,实现整体效果最优,进而实现整体效率大于各部分效率之和。

五是行业实践的经验总结。全行业在区域融合、“四网”融合、“多交”融合、线路融合、站城融合、系统融合、绿智融合、文旅融合、业务融合等实践的成果证明:“融合”是实现可持续发展的关键路径,需要形成完整的融合发展体系,以指导行业发展。

融合发展,需要以客流、财务、技术、装备、生态环境可持续为目标,聚焦引流(客流)、增收、降本三大方向,进行顶层设计。作为新时代呼唤的新作为,融合发展将与国产自主化、智能智慧化、绿色低碳化共同成为高质量发展的关键路径和抓手,推动城市轨道交通可持续发展。

Commentary

## 'Integration'——Key Path of Urban Rail Transit Development

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'Smart urban rail' and 'Green urban rail' have become industry consensus and are widely practiced. Meanwhile, 'integrated urban rail' and 'integration development' are frequently mentioned in the past year, and become especially ready for application

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after several landmark events in 2023. First, in April 2023, the National Development and Reform Commission held the 'Experience Exchange Symposium on Multilevel Rail Transit Integration Development in Urban Agglomerations' in Chongqing. Second, commissioned by the National Development and Reform Commission, the China Association of Metros successfully completed the research project on 'Multidimensional Integration and Sustainable Development Mode and Path of Urban Rail Transit' in January 2024. The project was personally guided by Chairman Bao Xuding and completed based on industry-wide research.

Third, 'integration development' is appointed as the theme of the 'Urban Rail Transit Leaders Summit Nanjing Annual Meeting' to be held in June 2024.

The reason why 'integration' has become the key concept and path for urban rail transit development is mainly based on the following five aspects.

First, as the industry develops to the current stage, sustainable development draws major attention. 'Smart' and 'green' are certainly part of the equation, however corresponding systemic solutions are needed for solving financial aspect problems. After more than half a century of development, by December 31, 2023, the total operating mileage of urban rail transit in mainland China reached 11,232 kilometers, playing an important role in the high-quality development of cities, leading urban spatial optimization, and guiding green travel in cities. However, confusions and imbalances come into existence throughout development, such as slow growth in passenger traffic, low transportation efficiency and benefits, high dependence on government subsidies, insufficient financial sustainability, and weak development momentum.

Second, specific implementation of the instructions of General Secretary Xi Jinping based on industry needs and characteristics. General Secretary Xi Jinping pointed out during his inspection of the Beijing Daxing Airport Line in 2019: 'Build comprehensive, green, safe, and intelligent urban transportation system.' Essentially speaking, 'integration development' refers to construct a system comprehensively.

Third, the implementation of policies of the National Development and Reform Commission and other departments. It was already proposed in 2024 by the National Development and Reform Commission that a comprehensive transportation system should be built. In a series of subsequent documents such as urban rail transit planning and construction opinions, and metropolitan circle city railway opinions, it is explicitly stated that 'integrated development' should be promoted.

Fourth, the inevitability that comes along with development and evolution stages of urban rail transit system. The urban rail transit system is a large and complex system, and its development follows the laws of system development. The primary stage is to achieve efficiency through specialization and structure, but excessive specialization will form barriers leading to waste and loss. At the present stage, it is necessary for subsystems to interchangeably permeate, promote, and accommodate each other, enhancing system overall coordination, complying local requirements with overall needs, and presenting the best overall effect, which further contributes to realization of overall efficiency greater than summed efficiency of each part.

Fifth, experience summary of industry practices. The results of regional integration, 'four-network' integration, 'multi-transport' integration, line integration, station-city integration, system integration, green-smart integration, culture-tourism integration, business integration, and other practices across the industry validates that 'integration' is the key path towards sustainable development. It is necessary to form a complete integrated development system to guide the industry's development.

Integration development requires top-level design with the goals of sustainable passenger flow, financial stability, technological advancement, equipment improvement, and ecological sustainability, focusing on passenger flow introduction, revenue increment and cost reduction. As a new initiative called for in the new era, integration development, along with domestic independence, intelligentization, and green and low-carbonization, will become key paths and leveraging points for high-quality development, promoting the sustainable development of urban rail transit.

(Translated by ZHANG Liman)