

深圳地铁全力推进各领域高质量发展

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深圳地铁经过 25 年的跨越式发展,目前已经建成 16 条地铁线路,运营里程达 558 km。深圳地铁的运营里程、线网密度、客运量、客流强度、智慧出行占比、TOD (交通引导发展) 发展指数、公交分担率等指标的排名均位列全国行业前十。

深圳地铁聚焦轨道交通主责主业,实施“轨道+”战略,构建了完整的轨道交通产业体系,持续探索轨道交通可持续发展模式,初步实现了国家铁路、城际铁路、城市轨道交通“三铁合一”的产业布局,初步构建了轨道交通建设、运营、站城开发、资源经营“四位一体”的核心价值链。2022 年,深圳地铁集中开通“五线三枢纽”,运营里程新增 128 km,其中的 126 km 为全自动运行线路。目前深圳地铁“三铁”在建里程 432 km,预计 2024 年还将新开工建设 186 km 的地铁新线,同时同步推进国家铁路、城际铁路及城市轨道交通的综合交通枢纽工程建设。

在地铁建设方面,深圳地铁广泛应用 BIM/CIM(建筑信息模型/城市信息模型)、渣土分离、光伏发电、智能环控、装配式车站等一系列新技术。例如:在地铁四期工程中,全面推广采用了 EPB/TBM(土压平衡掘进/全断面掘进)双模式盾构工法,全面推行盾构渣土减量化、资源化处理技术;在地铁五期工程中,建立了装配式车站技术体系,选定 42 座车站主体采用装配式方案,占五期工程施工车站总数的 31.5%。

在地铁运营服务方面,新开通的线路采用了全自动运行最高级别 GOA4(无人干预列车运行)技术,车站配备了“刷脸”过闸、免费群体“刷手”过闸功能,并实现了“脸码互通”;上线了深圳地铁乘车码、数字人民币购票、自助票务处理、电子发票、APP 提供一站式便民服务等功

能,推动广深港三地扫码乘车互联互通。以数字化赋能,着力打造以乘客为中心的高质量智慧服务体系。

在服务城市发展方面,深圳地铁以轨道交通为运输网络,充分利用“三铁”富余运力和各站点的空间资源,大力发展空铁轨联运,推动现代物流业蓬勃发展,建立绿色低碳、循环经济的发展体系,为实现“双碳”目标做出了贡献。同时,集约、高效、复合利用地上、地下空间,提升土地综合价值,大量配建公共住房、学校、幼儿园,以及公园、绿地、文体中心等公共开放空间,助力提高市民的生活质量。

未来,深圳地铁将紧扣“服务大局、服务城市、服务产业、服务民生”的功能定位,加快构建高水平、互联互通的轨道交通网络,全力提供普惠优质、人民满意的轨道交通运营服务,实现人享其行、物畅其流,奋力书写高质量发展答卷,为深圳创建社会主义现代化强国的城市范例做出新的更大贡献。



Commentary

Shenzhen Metro Striving to Promote High-quality Development in All Fields

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(General Manager of Shenzhen Metro Group Co., Ltd.)

After 25 years of leapfrog development, Shenzhen Metro Group Co., Ltd (hereinafter referred to as Shenzhen Metro) has built 16 metro lines, with an operating mileage of 558 km. Shenzhen Metro ranks among the top ten in the national industry in terms of its operating mileage, line network density, passenger volume, passenger flow intensity, smart travel proportion, TOD (transportation guided development) development index, bus sharing rate and other indicators.

Shenzhen Metro focuses on its main responsibility and main business of rail transit, implements the "rail + " strategy, has built a complete rail transit industrial system, continuously explores the sustainable development model of rail transit, initially realizes the industrial layout of "three railways in one" of national railway, intercity railway and urban rail transit, preliminarily establishes the core value chain of "four-in-one" of rail transit construction, operation, station city development and resource management. In 2022, Shenzhen Metro centrally opened "five lines and three hubs", with an additional 128 km of operating

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mileage, of which 126 km are fully automatic operating lines. At present, 432 km "three railways" is under construction by Shenzhen Metro, and in 2024, it is expected that Shenzhen Metro will start construction of 186 km new metro lines, and simultaneously promote project construction of the comprehensive transportation hub of national railway, intercity railway and urban rail transit.

In terms of metro construction, Shenzhen Metro widely uses a series of new technologies such as BIM/CIM (building information model/urban information model), residue separation, photovoltaic power generation, intelligent environmental control, and prefabricated stations. For example, in the fourth phase of the metro project, the EPB/TBM (soil pressure balance tunneling/full section tunneling) dual-mode shield construction method was widely promoted and fully adopted, and the shield residue reduction and resource treatment technology was fully implemented. In the fifth phase of the metro project, a technical system of prefabricated stations was established, and 42 stations were selected to adopt the prefabricated scheme, accounting for 31.5% of the total number of stations under construction in the fifth phase of the metro project.

In terms of metro operation services, the newly opened line adopts the highest level of automatic operation GOA4 (unmanned intervention in train operation) technology, and the stations are equipped with the functions of face-scanning check-in, and hand-waving check-in for the people free of charge, and the "face code interoperability" is realized. Shenzhen Metro uses the ride code, digital RMB ticket purchase, self-service ticket processing, electronic invoice, APP to provide one-stop convenience service and other functions, which promotes ride code inter-recognition and inter-connection in Guangzhou, Shenzhen and Hong Kong. With digital empowerment, Shenzhen Metro strives to create a high-quality intelligent service system centered on passengers.

In terms of serving urban development, Shenzhen Metro, taking rail transit as the transport network, makes full use of the surplus capacity of the "three railways" and the space resources of each station, vigorously develops air-rail intermodal transport, promotes vigorous development of modern logistics industry, establishes a green, low-carbon and circular economy development system, and contributes to the realization of the dual carbon goals. Meanwhile, Shenzhen Metro uses ground and underground space in an intensive, efficient and composite way, enhances the comprehensive value of land, builds a large number of public housing, schools, kindergartens, as well as parks, green spaces, cultural and sports centers and other public open space, and helps improve the citizens' living quality.

In the future, Shenzhen Metro will closely adhere to its functional position of "serving the overall situation, serving the city, serving the industry and serving the people's livelihood", accelerate the construction of a high-level and interconnected rail transit network, make every effort to provide inclusive and high-quality rail transit operation services that the people are satisfied with to realize that the people enjoy their travel and goods flow smoothly, and strive to write a high-quality development answer sheet, and make new and greater contributions to build Shenzhen into an example city of a great, modern socialist country.

(Translated by DAI Xiaoyun)

上海市域铁路机场联络线首列车顺利接收到段

近日,由上海申铁投资有限公司负责投资建设的上海市域铁路机场联络线首列车正式运抵上海申昆路车辆临时检修基地并完成接收,下阶段将开启紧锣密鼓的车辆调试工作。上海市域铁路机场联络线列车为国内首列市域 C 型列车,最高运行时速达 160 km,具有智能先进、安全舒适、公交化运行等特点,实现了高铁技术与城市轨道交通运用模式的结合。该列车为目前国内最先进的市域动车组车辆,基于复兴号智能城际动车组技术平台开发,同时结合上海市域铁路机场联络线特点,进行了一系列研究探索并取得了重大技术突破:首次采用头车和中间车长度相同的设计,满足了车辆灵活编组、站台门的活动门等间距设置的需求;首次实现了自动折返功能,大幅提高了运输效率,同时具备与国铁互联互通的条件;车辆采用智能旅服、智能监测、智能运维和智能行车等前沿技术,有效提高了市域铁路列车的智能化水平。

(来源:上海申铁投资有限公司)