



SUSTAINABLE URBAN INFRASTRUCTURE FOR CHINA'S NEW URBANIZATION

中国新型城镇化的可持续城市 基础设施

HAL HARVEY

何豪

ENERGY INNOVATION: POLICY AND
TECHNOLOGY

能源创新：政策与技术

CHINA IS ENTERING A NEW PHASE OF URBANIZATION

中国正进入城镇化的新阶段



We need both
“Green Mountains” and
“Golden Mountains”
既要“金山银山”，
也要“绿水青山”

CHINA IS ENTERING A NEW PHASE OF URBANIZATION

中国正进入城镇化的新阶段

Shifting from pursuing quantitatively development to quality control and eco-development
从追求数量型发展转向质量控制和生态发展

Intensive New Town Development
集约化新城开发



City Regeneration
城市重建



CHINA IS ENTERING A NEW PHASE OF URBANIZATION

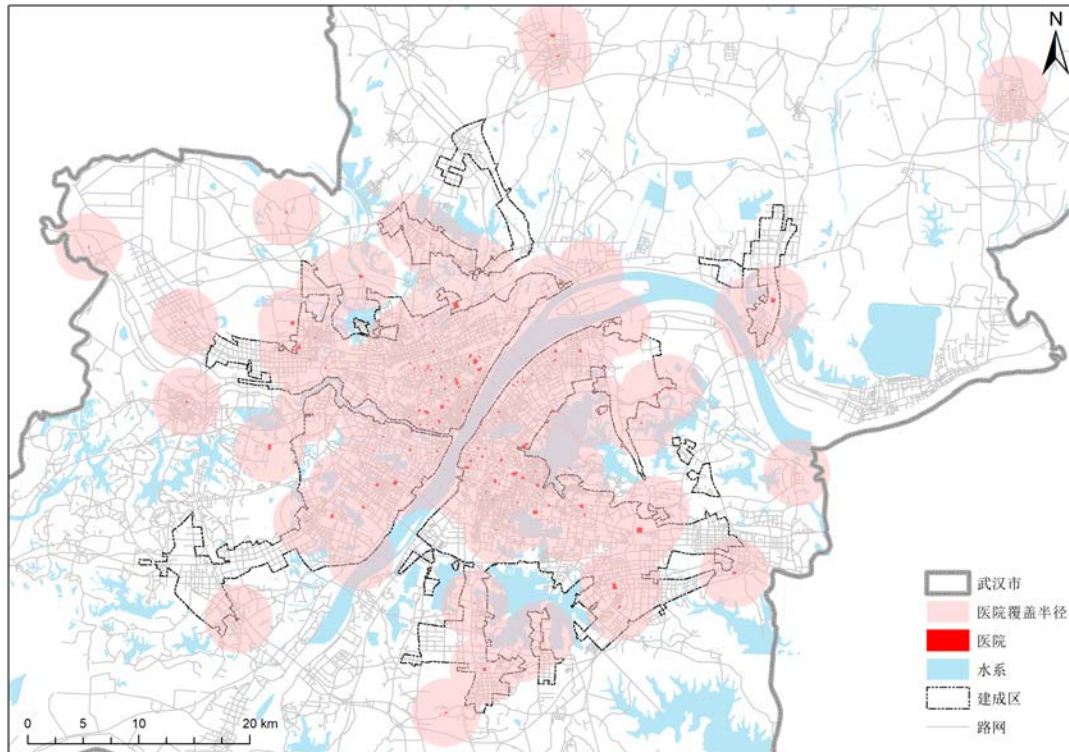
中国正进入城镇化的新阶段

Urban Infrastructure Plays Critical Role for Urban **Sustainability** and Safety
城市基础设施在城市可持续性和安全性中发挥关键作用

Wu Han武汉:

The hospitals (health infrastructure) covers **77%** percent of the urban area within 3km radius.

医院（卫生基础设施）覆盖半径3公里以内**77%**的城区



Milan米兰:

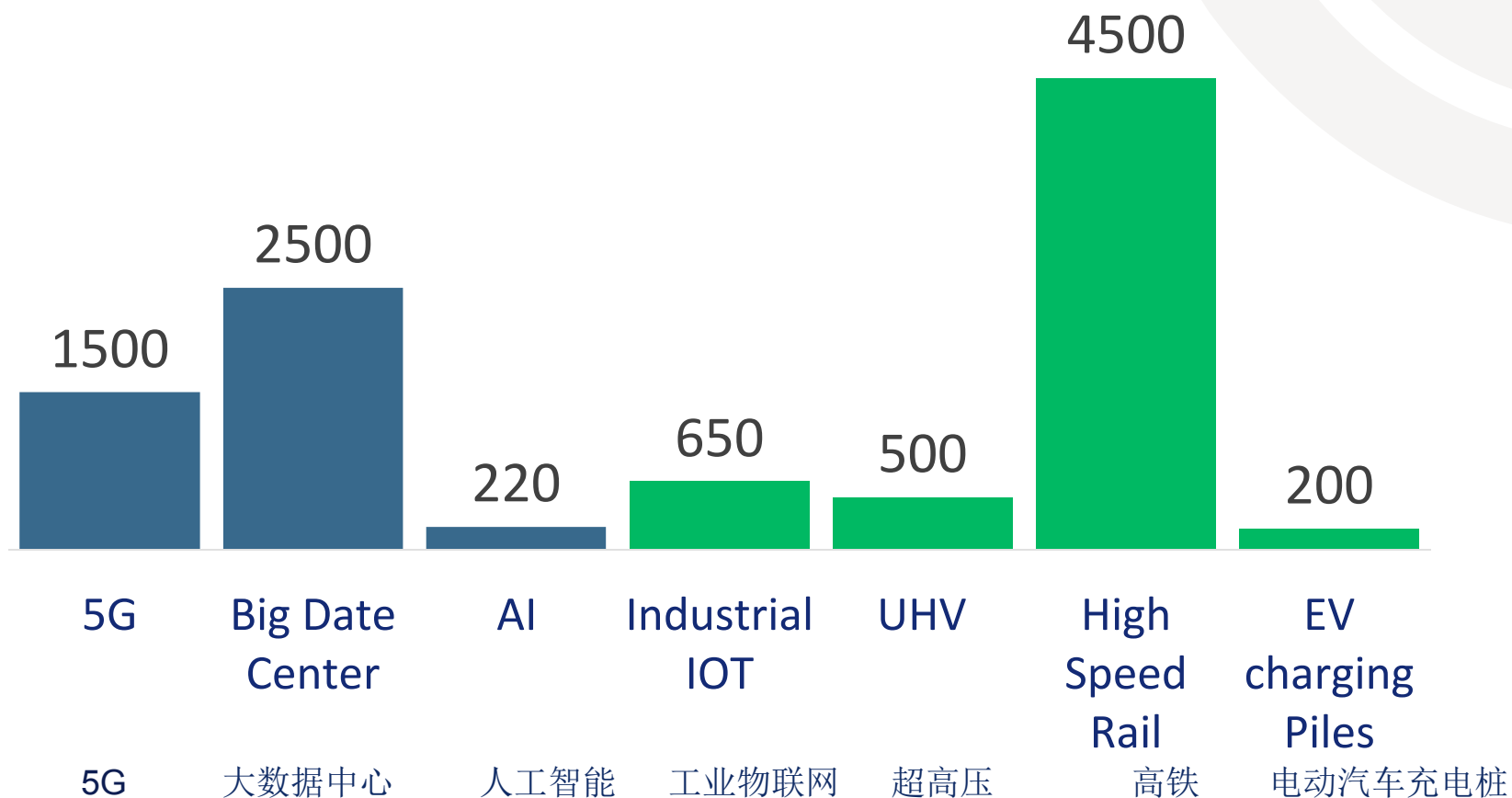
Milan is introducing one of Europe's most ambitious schemes relocating street space from cars to cycling and walking in response to the COVID-19. 为了应对新冠肺炎疫情，米兰推出了欧洲最雄心勃勃的计划，将供汽车使用的街道空间改用于骑行和步行空间。



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中国正进入城镇化的新阶段

The new post-coronavirus stimulus plan pose great opportunities for sustainable urban development
新冠肺炎疫情后的新经济刺激计划为可持续城市发展带来了巨大机遇



Shaping China's City Development to a Low Carbon Future

打造中国城市发展的低碳未来

What we can do with the
new urban infrastructure
development?

我们该如何发展新型城市基础设施？



EMERALD CITIES: TEN PRINCIPLES FOR LOW CARBON CITIES

翡翠城市：低碳城市开发十原则

THE TEN PRINCIPLES

十项原则

01

Urban Growth Boundary城市增长边界

Plan for growth, while preserving natural ecologies, agrarian landscapes, and cultural heritage sites紧凑型增长规划，保护自然生态、农业景观与文化遗址

02

Transit Oriented Development公共运输导向型开发

Focus density around transit with mixed-use, walkable neighborhood将人口集中在公共交通周边，开发适宜步行的混合用途街区

03

Mixed Use混合用途

Create mixed-use neighborhoods and districts创建功能混合社区和片区

04

Small Blocks小街区

Create dense street networks that enhance walking, bicycling, and vehicle traffic flow建设密集街道网络，优化步行、骑行和机动车交通流

05

Walk and Bike步行与自行车交通

Design walkable and bikable streets to enhance non-motorized transportation打造适宜步行和自行车出行的环境，促进非机动化交通

06

Public Space公共空间

Provide human-scaled and accessible civic clusters, green space, and parks提供人本尺度的、可达性高的市政配套设施、绿地和公园

07

Transit公共交通

Develop high quality public transit and affordable BRT发展高质量的公共交通和负担得起的快速公交系统

08

Car Control小汽车控制

Increase mobility by regulating parking and road-use规范停车与道路使用，提高道路交通效率

09

Green Buildings绿色建筑

Employ best practices in building energy and resource conservation在建筑节能和资源节约方面采用最佳实践

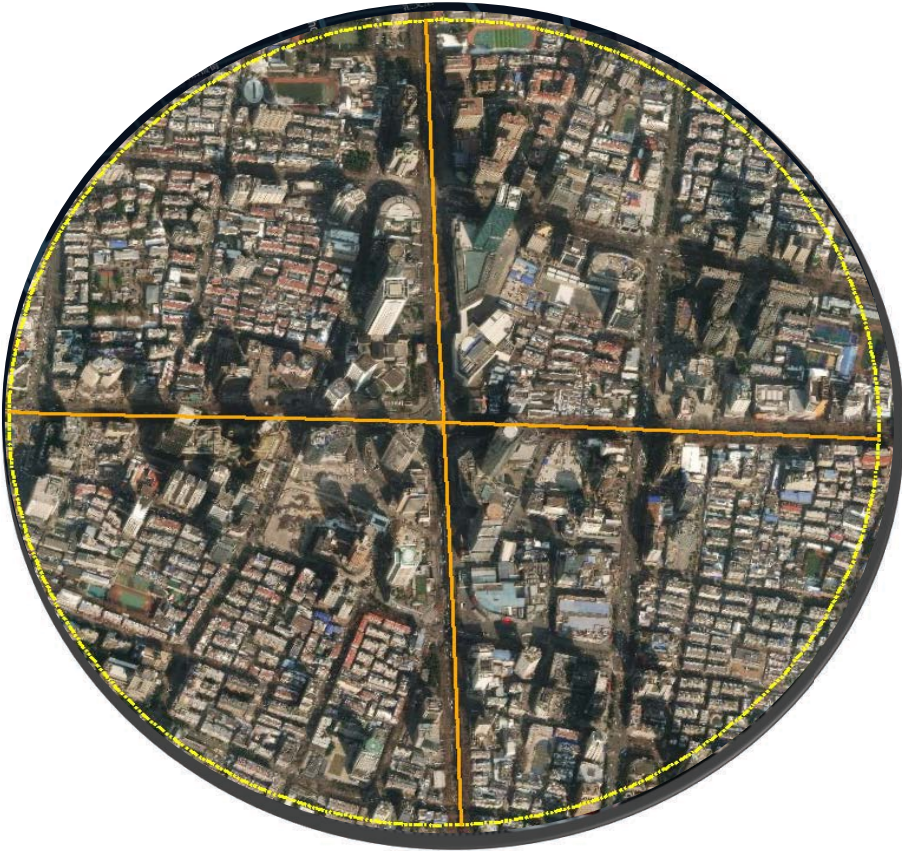
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Sustainable Infrastructure可持续基础设施

Reduce energy use, waste production, and water through renewables, recycling, and efficiency in public infrastructure通过开发可再生能源、推广资源回收再利用、提高公共基础设施的效率等手段，减少能源消耗、用水量和垃圾数量

TAKING ADVANTAGE OF RAIL DEVELOPMENT TO FORM LOW CARBON URBAN DEVELOPMENT PATTERN – TOD

利用轨道发展优势形成低碳城市发展模式-TOD指数排名



Nanjing Xinjiekou Rail Station, TOD ranking #1 of 2773 Chinese metro stations, FAR=4.39

南京新街口站，在2773个中国地铁站中TOD指数排名第1，FAR = 4.39



Hongzuizi Rail Station, TOD ranking #2773 of 2773 Chinese metro stations, FAR=0.05

红嘴子站，在2773个中国地铁站中TOD指数排名第2773，FAR = 0.05



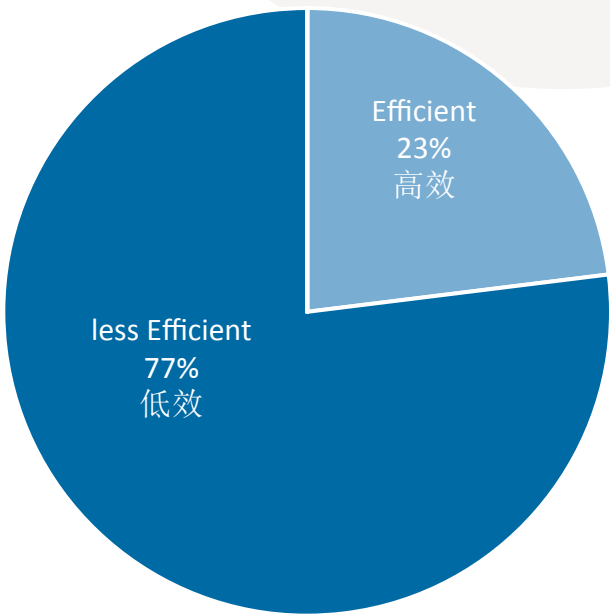
GREAT POTENTIAL FOR THE SOCIAL AND ECONOMIC DEVELOPMENT ASSOCIATED WITH RAIL DEVELOPMENT

轨道发展相关的巨大社会经济发展潜力

Land Use Efficiency Around 2700 Metro Stations in China
中国2700个地铁站附近的土地利用效率



Land Use Efficiency Around 2700 Metro Stations
2700个地铁站附近的土地利用效率



USING PRINCIPLES TO REVITALIZE CITY CENTER

利用低碳城市开发原则重振城市中心

- **Transfer urban development to denser and mix used system**将城市发展转向更密集和混合的系统中
- **Make high quality ecological system accessible for people**使高质量的生态系统触手可及
- **Create people oriented public space**创造以人为本的公共空间
- **Bring life to car oriented street**给汽车导向型街道带来生气
- **Establish strong green mobility system**建立强大的绿色出行系统



What Should Be Done to Make Sure Sustainable Cities are Built On-the-Ground?

如何确保可持续城市建设落地？

Support From the Government政府支持:

- Investments must follow clear guidelines for urban development. 投资必须遵循明确的城市发展指南。

Policy政策:

- Accelerating adoption of modern urban planning and Design technical guidelines, standards and codes;加快采用现代城市规划和设计技术指南、标准和规范;

Capacity Building能力建设:

- National demonstration projects that include different scale of development projects for peer learning国家示范项目，包括不同规模的同侪学习发展项目；
- Development state-of-art and practical training program for government officials and practitioners. 为政府官员和从业人员开发最新的实用培训课程。

Incentives激励:

- Future development projects will get fast approval and will only be approved if these strategies are followed.未来开发项目将获得快速批准，并且只有在遵循这些策略的情况下才能获得批准。

PLANNING FOR OPPORTUNITY FOR LASTING CHANGE!

抓住持久变革的机会！

