

I come from

Shanghai Municipal Commission of Housing, Urban-
Rural Development and Management



Shanghai

Striving for the Excellent Global City



Housing
management



Construction
management



Urban
operation

The Strategy of Low Impact Development and Construction in Shanghai

New trends in global urban development

● Problem Identification

The New Urban Agenda, which laid out new development targets and directions for cities around world for the next two decades. Urban development will focus on guiding urban planning, construction and management with sustainable, inclusive and innovative ideas to achieve a resilience urban development model.

The development trend of Shanghai

Big demolition and construction



Organic renewal

- We should strengthen the close connection of all kinds of facilities, play the network effect and synergy effect, and promote the coordinated development of regional and urban and rural construction.
- We should develop the low impact development and construction (LID) mode throughout the full-lifecycle of planning, construction and management.



The Strategy of Low Impact Development and Construction in Shanghai

● **Background of the Policy**



Related ideas of the Policy : Urban sustainable development; resilient urban ; recycle economy; lightweight construction; urban organic renewal...

Goal of the Policy : Forming a low impact development and construction strategy system, making Shanghai's urban construction "cleaner, more orderly and safer".

Origin of the ideas : Low impact development (LID) is an innovative stormwater management model originated in the United States in 1980s.

Expansion of the ideas : From the management of rain and flood to the development of urban construction management.

Policymaker of the Policy : Shanghai Municipal Commission of Housing, Urban-Rural Development and Management; Shanghai Municipal Commission of development and Reform.



The Strategy of Low Impact Development and Construction in Shanghai

● Key Ideas of the Policy



- Low impact development is a concept and measure to achieve the minimum impact on nature and minimum impact on the basic functions of urban residents, so as to maintain urban resilience.
- The low impact development is the **low emission** in urban development (carbon reduction and energy saving), **low pollution** to the ecological environment, **low disturbance** to urban operation, **low risk** to public safety, low risk of public safety and **low cost** in maintenance of the system through rational planning, scientific construction, intelligent management and technological innovation.



The Strategy of Low Impact Development and Construction in Shanghai

● Key Issues of the Policy Implementation

Before Construction:
planning

- Communication among different departments is not smooth
- Lack of connection between planning and construction plan
- Pay attention to the present, lack of long-term consideration

During Construction:
Construction

- Technical standard system is incomplete
- Project owners lack the motivation to implement
- Construction technology needs to be improved

After Construction:
management

- Imperfect supporting policies
- Poor supervision and assessment
- Insufficient promotion and Application

Shanghai

The Strategy of Low Impact Development and Construction in Shanghai

● Path of the Policy Making and Implementation

Research

- Theory System
- Development Strategy
- Development Mechanism
- Following Plan

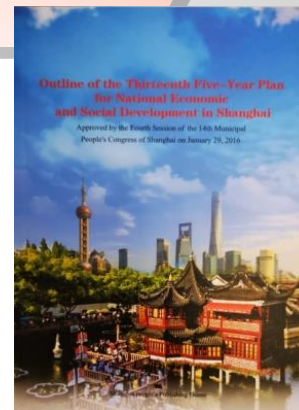
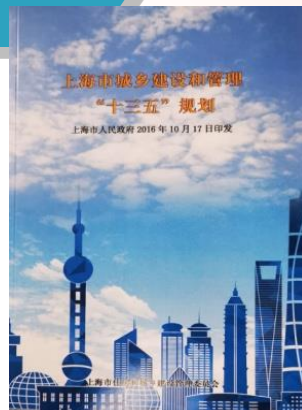
Make

Writing low impact development ideas into various levels of planning

Implement

- Sponge City Construction
- Architectural Engineering
- Rail Transit
- Municipal Facilities and Roads
- Bridge Engineering

Thirteenth Five-Year Plan for Urban - Rural Construction and Management in Shanghai

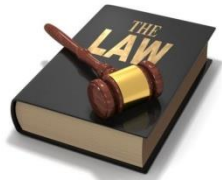
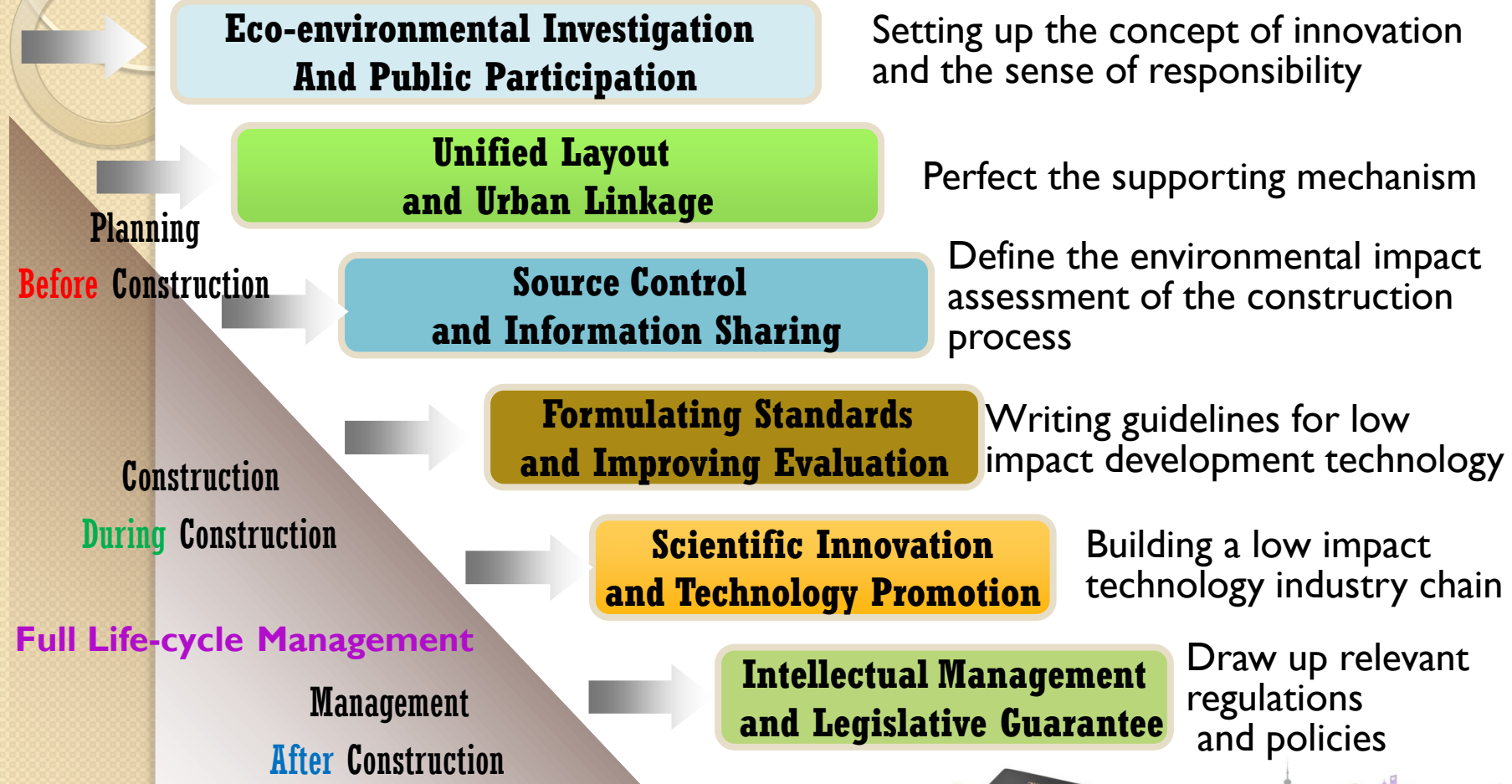


Outline of the Thirteenth Five-Year Plan for National Economic and Social Development in Shanghai



The Strategy of Low Impact Development and Construction in Shanghai

• Key Strategies of the Policy Implementation

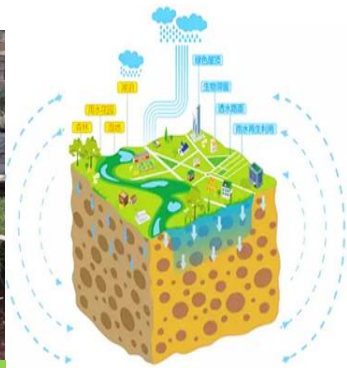


The Strategy of Low Impact Development and Construction in Shanghai

• Cases of the Policy Implementation



Sponge City Construction
---Rain Park

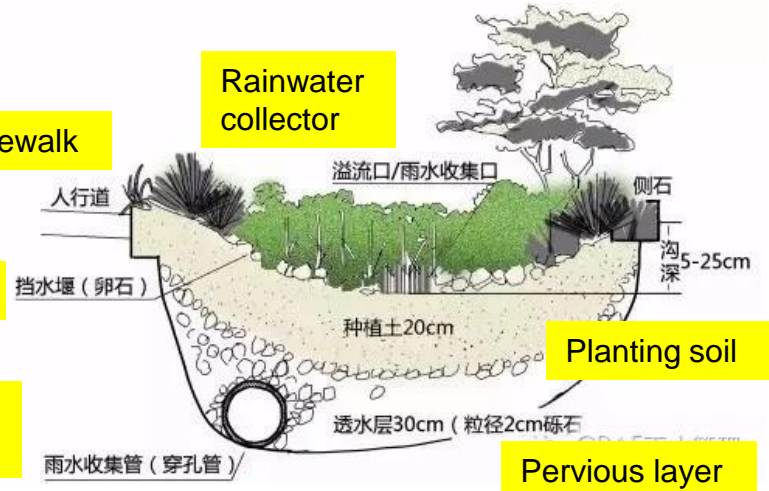


Rainwater collection pipe

Sidewalk

Rainwater collector

Pebble

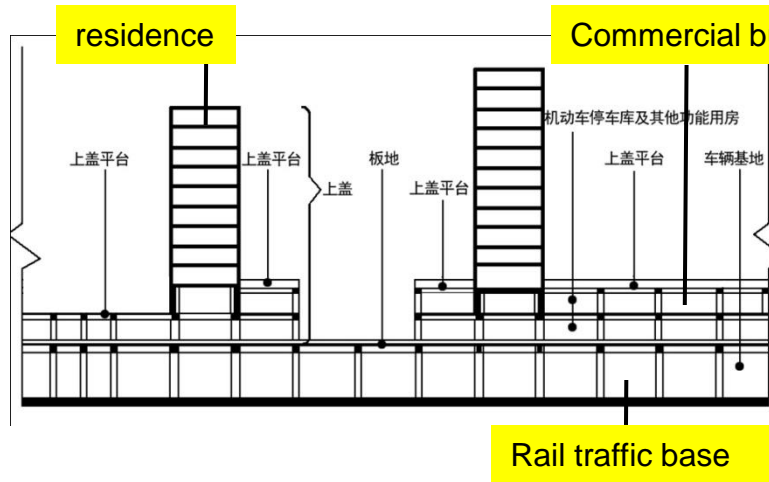


Planting soil

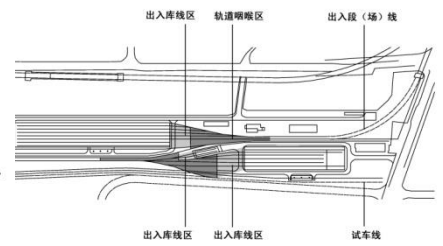
Pervious layer



Comprehensive Development and Utilization of Rail traffic Base



Rail traffic base



The Strategy of Low Impact Development and Construction in Shanghai

• Lessons and Implications



Making some exploration for the urban development of Shanghai

Experience and Regret

The promotion and application of the policy needs to be strengthened



Improving the relevant standards from the point of view of the full life-cycle

Popularized Strategies

Building a low impact development technology industry chain



Further expand the ideas of low impact development and the promotion of technology

Expectations and suggestions

Further improving the incentive policy of low impact development



Thanks for your listening!



四、上海低影响开发——定义的提出



图1 温哥华：高密度下的宜居城市



图2 新加坡：花园城市



图3 西雅图：可持续发展的城市

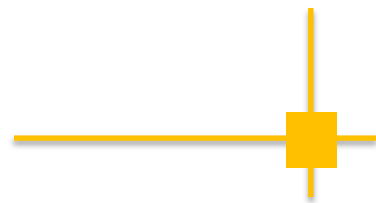


扎根生态、管理、社会学基础，融入生态、绿色、循环、创新、共治等理念
全球化城市带来的规划、建设、管理全生命周期的开发理念

四、上海低影响开发——定义的提出

上海低影响开发的定义

- 低影响开发是基于全生命周期思想的，通过合理规划、科学建设、智慧管理、技术创新实现城市开发（减碳节能）低排放、（生态环境）低污染、（城市运行）低干扰、（公共安全）低风险、系统维护（低成本），最大限度实现对自然搅动最小、对城市居民基本功能影响最小，从而保持城市韧性的理念和措施。



五、低影响开发目标与策略

聚焦功能

全球城市



具有全球影响力的科创中心



低影响开发需求迫切且已具备条件



五、低影响开发目标与策略

聚焦领域



海绵城市



楼房建筑工程



轨道交通建设



市政道路建设



高架桥梁建设



地下空间



智能电网建设

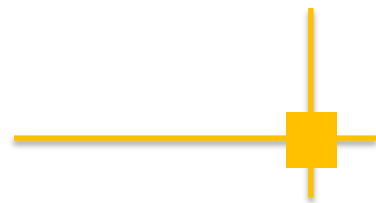


空中廊道

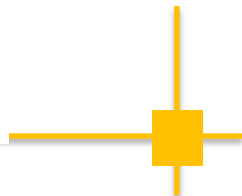
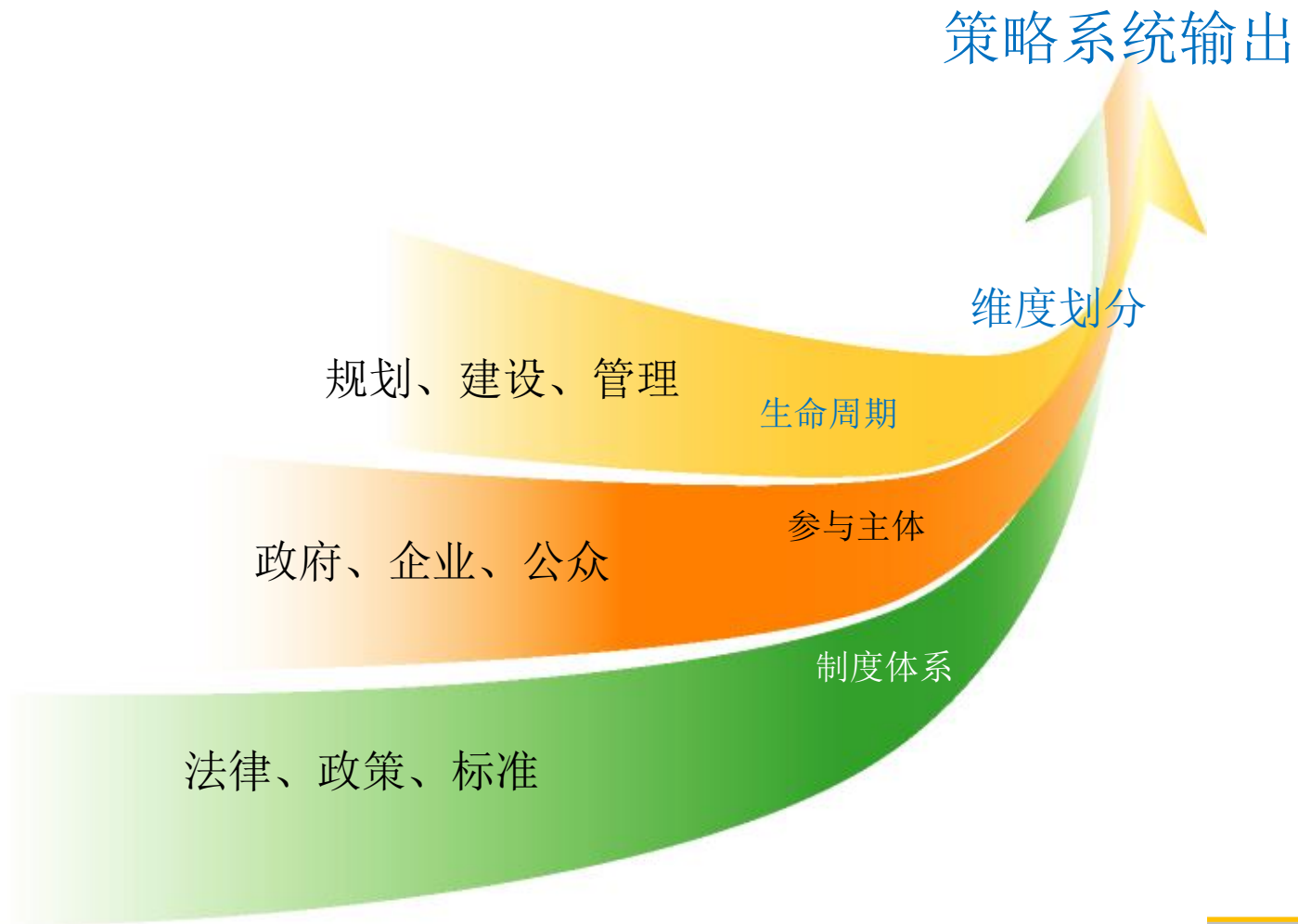
未来

当下

更生态、更绿色、更集约



五、低影响开发目标与策略



五、低影响开发目标与策略

具体措施

(一) 加强顶层设计、推进整体统筹

1、建立低影响开发领导机制

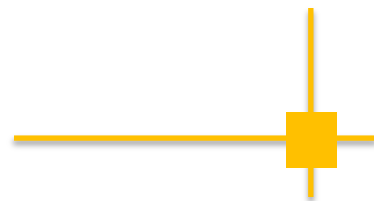
- 一是用好现有规划建设联席会议制度
- 二是建立新的市级层面的低影响开发领导小组推进机制

2、建立资金投入机制

- 一是加大财政资金投入、引导社会资金进入
- 二是通过科技专项支持低影响开发技术优先立项
- 三是加大各类资金整合力度，提高效率

3、建立专家咨询委员会

对低影响开发重大项目提供意见和建议等



五、低影响开发目标与策略

（二）推进标准建设、率先突破应用

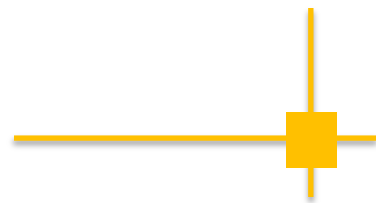
1、低影响技术标准的快速工作机制

一是对尚未有国家和地方标准的低影响开发技术允许在工程项目中开展试点应用

二是编制相关设计、施工、验收的技术标准（导则），经市级有关部门组织的建设工程技术专家委员会论证后，作为该工程建设和验收的依据

2、加大低影响开发标准激励

完善标准创新奖励、标准化成果考核机制，鼓励企业、科研机构 and 科研人员积极投入标准的研究和开发，支持企业建立高于国家标准或行业标准的企业标准



五、低影响开发目标与策略

（三）完善政策体系、实现多元共建

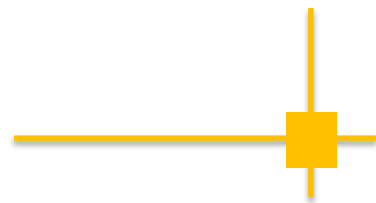
1、加大政府支持力度

一是加大财税等政策支持力度，明确海绵城市建设、绿色建筑、综合管廊等领域相关产业享受低影响开发支持政策，将相关技术、产品、部件纳入财政支持目录，执行税收优惠减免政策。

二是制定有利于低影响开发的土地政策，在土地出让条件中明确低影响开发的相关要求，优先保障低影响开发项目用地。

2、推进社会多元共治

提高市民支持低影响开发的意识，增进企事业单位与社会组织参与城市低影响开发建设、管理的自觉



五、低影响开发目标与策略

（四）加强部门协同、强化保障措施

1、健全项目审批流程和招投标管理

一是开展规划、环保、水务、住建等部门联合会审，每一部门都要严格按照低影响开发标准体系开展论证，对不符合低影响要求的项目，给予一票否决。

二是项目评审中要体现低影响开发建设思想，强调社会价值功能导向，政府项目、公益项目纳入低影响开发权重打分。

2、适时推进低影响地方立法保障

借鉴国际经验，通过立法保障加强城市低影响开发建设的约束和保障，倒逼低影响开发技术发展。



五、低影响开发目标与策略

（五）、推动科技创新，支撑引领发展

1、建立项目储备库、加强对低影响开发预研究支持

一是健全科研项目储备机制，加强低影响开发建设研究在住建领域科研工作系统布局，建立低影响开发建设项目库，为制定和部署实施低影响开发提供依据。

二是加大对低影响开发技术和低影响开发战略等的预研究支持，通过软科、硬科学研究结合给出低影响开发整体方案。

2、编制低影响开发创新目录，推进创新应用示范与试点

一是对相关专家委员会评估论证通过的低影响开发项目成果，编制和发布行业自主创新技术（产品）目录。并在工程项目中可以直接采用。

二是在推进智慧城市、海绵城市、自由贸易区、生态示范区、低碳发展实践区以及重点功能区域等工程建设中，开展低影响开发技术的集中应用示范



五、低影响开发目标与策略

（六）、加速信息整合，强化全生命周期监管

1、加强监管力度，注重全生命周期管控

明确责任，加强监控，奖惩分明。要求工程建设单位责任到人，提升实时监控水平，若发生对交通、安全造成重大影响的事件，应严厉追责。完善社会监管机制，公开重大工程信息，开通监督热线，奖励对不达标工程和企业的举报。完备预警应急机制，以及时降低城市建设中对生态、环境、交通、安全等产生的威胁和不利影响

2、加强信息资源整合，提升决策精准度

采集和整合建筑桥梁、地下管网、道路隧道等市政工程领域的的数据信息，逐步建立面向全市城市开发建设的综合信息平台，形成数字化模型与城市规划的联动，为城市规划、建设、运营安全管理做出贡献。





谢谢聆听， 敬请指正！