

CHINA EUROPE Water Platform

第十八届世界水资源大会
北京

中欧水资源平台 (CEWP) --海绵城市及其他: 应用“三
点法”建设具有气候韧性的城市地区

2023年9月23日

Adress: XVIII World Water Conference Centre
Meeting room 4 SE7 start time 11:00pm to 12:30pm
Contact persons: Netherlands Delegation
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CEWP PI Lot #3 水与城市化

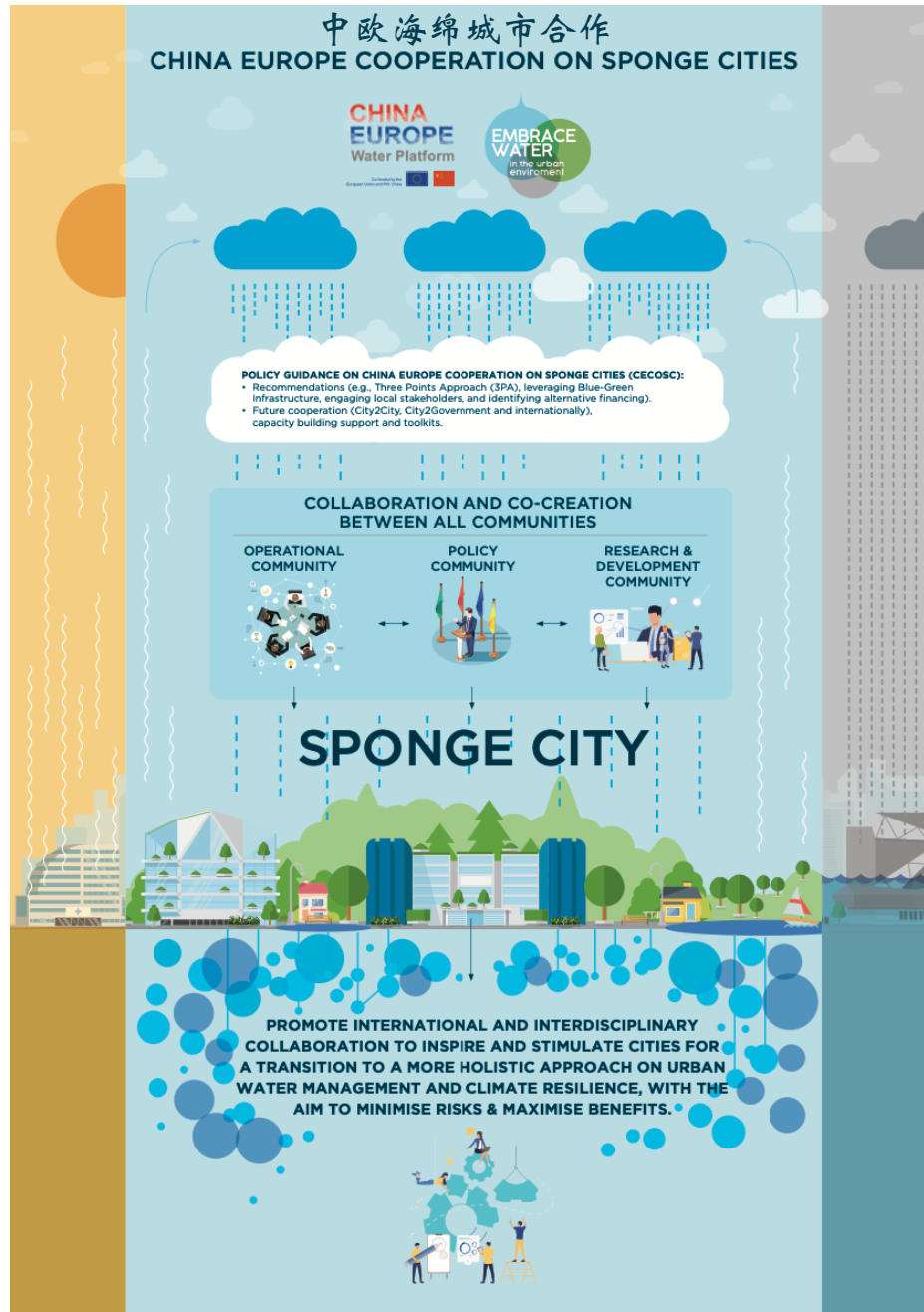
CECoSC 合作伙伴



EU Partners	CN Partners
<p>荷兰</p>  <p>Rijkswaterstaat Ministry of Infrastructure and Water Management</p>	 <p>中国城市规划设计研究院 CHINA ACADEMY OF URBAN PLANNING & DESIGN</p>
<p>丹麦</p>  <p>UNIVERSITY OF COPENHAGEN</p>	 <p>北京市水务局 BEIJING WATER AUTHORITY</p>
<p>芬兰</p>  <p>TURKU AMK TURKU UNIVERSITY OF APPLIED SCIENCES</p>	
<p>瑞典</p>  <p>Research Institutes of Sweden Onderzoeksinstituut</p>	
<p>合作城市</p> <p>阿姆斯特丹、图尔库 哥本哈根、哥德堡</p>	<p>试点城市</p> <p>北京 常德 (湖南省)</p>



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PROMOTE INTERNATIONAL AND INTERDISCIPLINARY COLLABORATION TO INSPIRE AND STIMULATE CITIES FOR A TRANSITION TO A MORE HOLISTIC APPROACH ON URBAN WATER MANAGEMENT AND CLIMATE RESILIENCE, WITH THE AIM TO MINIMISE RISKS & MAXIMISE BENEFITS.

促进国际和跨学科合作，激励和推动城市向更全面的城市水资源管理和气候适应性方法过渡，以实现风险最小化和效益最大化。

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CHINA EUROPE COOPERATION ON SPONGE CITIES

CHINA EUROPE Water Platform

EMBRACE WATER in the urban environment

POLICY GUIDANCE ON CHINA EUROPE COOPERATION ON SPONGE CITIES (CECOSC):

- Recommendations (e.g. Three Points Approach (3PA), leveraging Blue-Green Infrastructure, engaging local stakeholders, and identifying alternative financing).
- Future cooperation (City2City, City2Government and internationally), capacity building support and toolkits.

中欧海绵城市合作 (CECOSC) 政策指南:

- 建议 (例如, 三点法 (3PA)、利用蓝绿基础设施、让地方利益相关者参与、确定替代融资)
- 未来的合作 (城市对城市、城市对政府和国际合作), 提供能力建设支持和工具包



CHINA EUROPE Water Platform

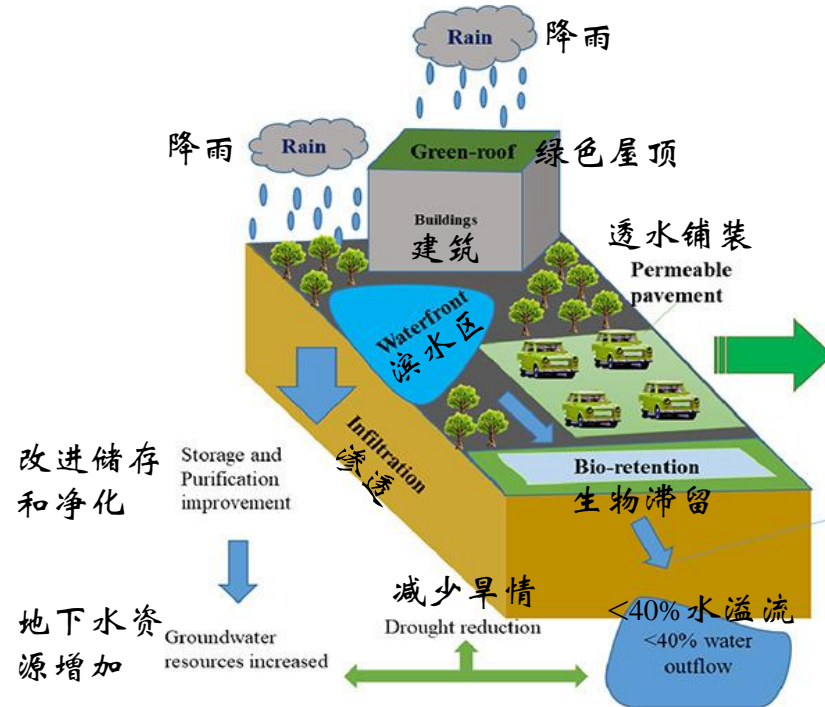


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CECoSC 项目：共同主题

如何充分利用我们在雨水管理方面的投资？



巨大而复杂的任务需要新技能、新技术和新产品

1. SCC 决策支持工具

=> 平衡蓝绿和灰色（传统）排水系统

2. 蓝绿基础设施的经济评估

3. 动态适应路径法

4. 监测蓝绿基础设施

5. 为 BGI 和海绵城市融资

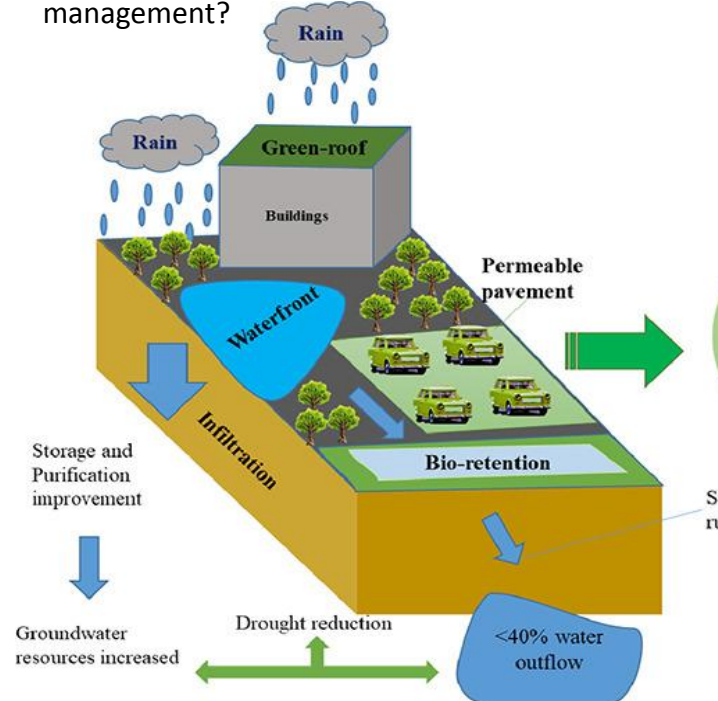
6. 共同创造和社区参与

7. 管理



The CECoS project: shared themes

How to make the most of our investments in stormwater management?



Huge and complex task requiring new skills, technologies and products

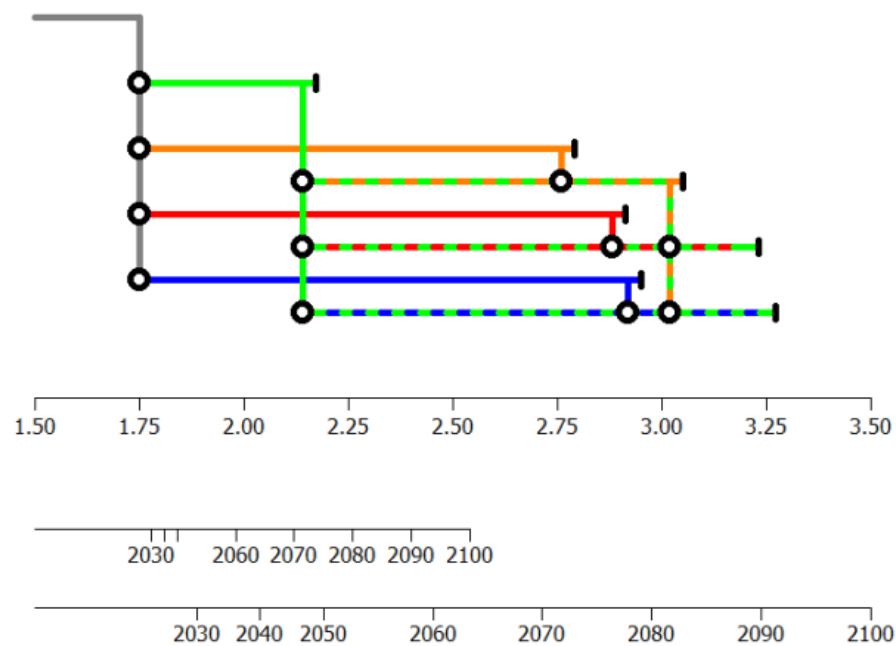
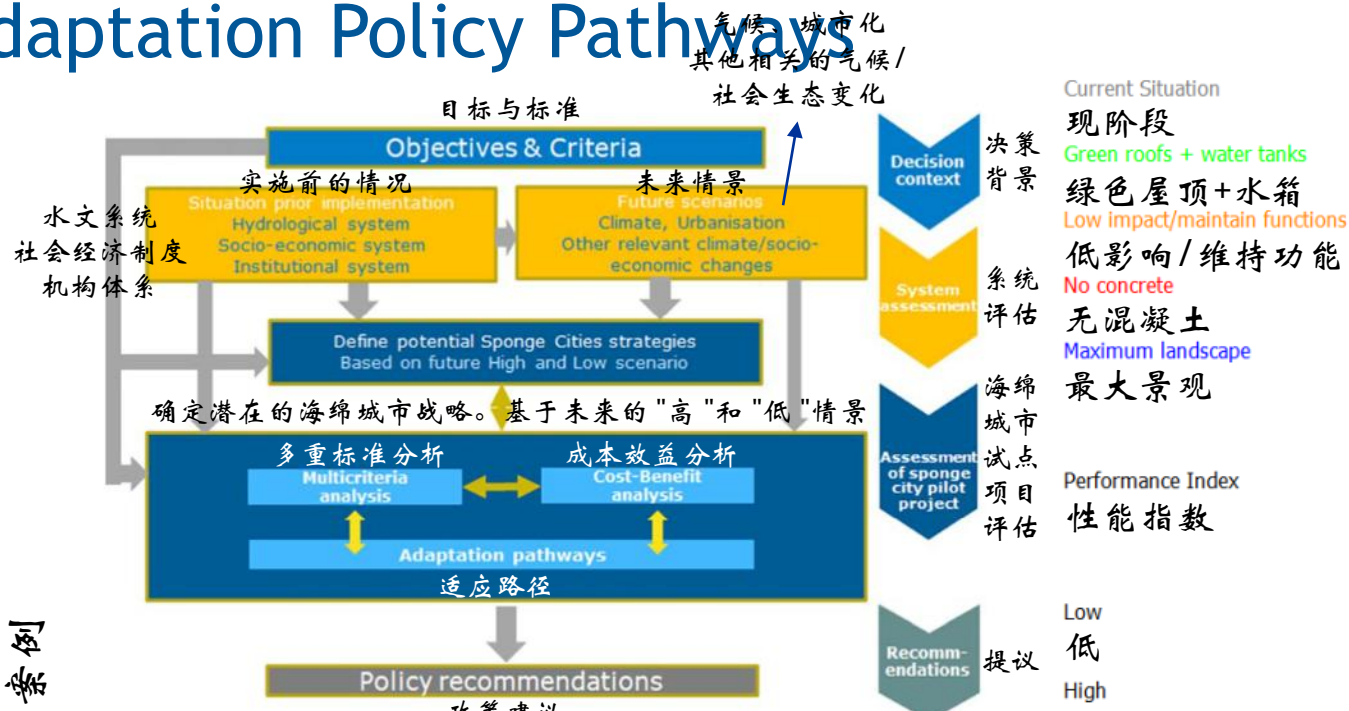
1. **Decision Support Tools for SCC**
=> Balancing blue green & grey (traditional) drainage systems
2. **Economic evaluation blue green infrastructure**
3. **Dynamic Adaptation Pathways approach**
4. **Monitoring blue green infrastructure**
5. **Financing BGI & Sponge cities**
6. **Co-creation and community involvement**
7. **Governance**

利用动态适应政策路径生成和评估备选计划

Generate and evaluate alternative plans using Dynamic Adaptation Policy Pathways

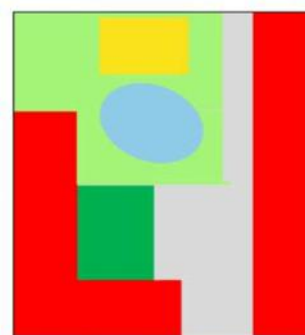
Wu K, Warren A. (2021) Guidance: Adaptive planning through Dynamic Adaptive Policy Pathways for urban climate adaptation. CECoSC work package 6+8, China Europe Water Platform

CECoSC - 常德案例



Changde Meteorological bureau, area 12.900 m2
Current situation

常德市气象局，面积 12900 平方米，现状



- Building area, 3.400 m2 建筑区域
 - Parking area with permeable tiles, 650 m2 铺设透水地砖的停车场
 - Concrete area, 5.000 m2 混凝土区域
 - Natural landscape, incl dry grass ditches 3.000 m2 包含干草沟渠的自然景观
 - Water pond 400m2 水池
 - Sport area, concrete 450 m2 混凝土运动场
- * surfaces are indicative

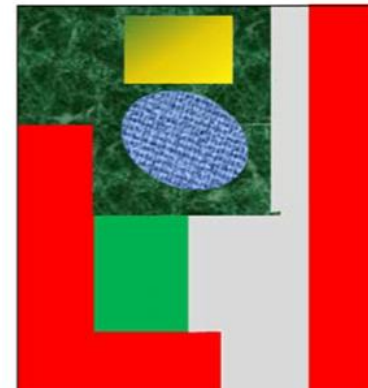
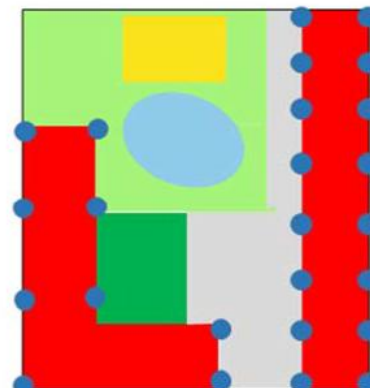
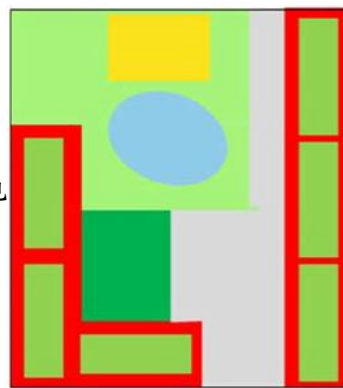


Figure 4 current situation pilot location Change land use schem

使用成本效益分析方法评估备选计划

Evaluate alternative plans using Cost - Benefit Analysis methods

1. Problem analysis 问题分析	<ul style="list-style-type: none"> What is the problem or opportunity? What is the policy objective in the area? What are the most promising options?
2. Establish the baseline alternative 确定基准替代方案	<ul style="list-style-type: none"> Most likely scenario in the absence of any measures Effect = policy alternative – baseline
3. Define policy alternatives 确定政策备选方案	<ul style="list-style-type: none"> Describe the measures to be taken Unpick packages of measures Define several alternatives and their effects
4. Determine effects and benefits 确定效果和效益	<ul style="list-style-type: none"> Identify effects Quantify effects Value (monetise) effects
5. Determine costs 确定成本	<ul style="list-style-type: none"> Resources consumed to implement measures Costs may be one-off or recurring Only costs additional to the baseline
6. Analyse variants and risks 分析变量和 risk	<ul style="list-style-type: none"> Identify the main uncertainties Analyse the consequences for each variant
7. Overview of costs and benefits 成本效益概览	<ul style="list-style-type: none"> Calculate all costs and benefits discounted to the same base year and calculate the balance Present all effects, including non-quantified and/or non-monetised effects
8. Presentation of results 成果展示	<ul style="list-style-type: none"> Relevant, understandable and clear Explain: transparency and reproducibility Interpret: what can the decision-maker learn from the CBA?

Figure 17 screen shot of NVE webtool

Project alternatives	Investment option	CEA Costs (Capex + Opex) / 2021.mil PpP 2016	CBA Cost Effectiveness (Cost/Benefit) / 2021.mil PpP	MCA			Sustainability			Supply (mcm/y) / ATP			
				Ease of Implementation	Socio-economic impacts	Environmental impacts							
Scenario				Bas	Hig	Lo	Bas	Hig	lo	Bas	Hig	lo	
Mananga Dam		7.410	7.2	1,644	--	--	--	--	--	0	0	0	41
Lusaran Dam		4.032	4.1	3,033	--	--	--	--	--	--	--	--	40
Kotkat Weir		3.456	6.6	963	--	--	--	--	--	--	--	--	21
Upgrade Luyang Weir		2.020	13.5	-228	+	0	+	0	-	0	-	-	6
GW wells inside		2.652	4.2	2,096	0	+	0	++	+++	++	0	+	26
GW wells outside		7.436	4.4	1,065	0	0	0	0	--	--	--	0	13
Southern Wells		4.073	12.9	-806	--	--	--	--	--	--	--	--	15
Desalination		na	16.8	na	+	++	+	+	++	+	--	--	Diff size s

Figure 22 Example of a integrated score card

China Europe Cooperation on Sponge Cities

中欧海绵城市合作

CEWP 海绵城市项目的政策指导对此进行了详细阐述：<https://cewp.eu/policy-guidance>

Policy Guidance on China-Europe Cooperation on Sponge Cities

1. CEWP Policy Dialogue Process

The China-Europe Water Platform (CEWP) is designed around three strategic pillars - Policy Dialogue, Research and Innovation and Business Cooperation - with, at the same time, four thematic Focus Areas, namely Water Management and Ecological Security, Rural Water & Food Security, Water & Urbanization, Water & Energy Security.

Aiming to raise and to deepen the Policy Dialogue, there are ongoing activities between Chinese and European partners under each of these themes and in additional cross cutting issues as New Visions on Integrated Approaches, Business Cooperation and Climate Change.

And due to the fact that CEWP-EU has five Grant Contracts with EUDEL, this Policy Dialogue, being

中欧海绵城市合作的政策导向

1. 中欧水资源交流平台政策对话进程

中欧水资源交流平台围绕政策对话、研究与创新、商业合作三大战略支柱以及水资源管理与生态安全、农村水资源与粮食安全、水资源与城镇化、水资源与能源安全四个重点领域展开。

为了提升和深化政策对话，中欧合作伙伴正在这些主题下开展活动，并围绕综合方法的新愿景、商业合作和气候变化等其他交叉问题开展活动。

由于中欧水资源交流平台欧盟方面已与欧洲代表团签订五份赠款合同，本次政策对话将

提议 CEWP-CECoSC 政策报告

- 1) 降低风险，实现效益最大化：采用三点法（3PA）规划弹性（城市）水系统
- 2) 利用蓝绿基础设施升级现有灰色基础设施
- 3) 让公民和其他学科的专家参与蓝绿基础设施的实施
- 4) 改进战略、战术和业务资产管理
- 5) 建立蓝绿基础设施资产登记册
- 6) 促进纵向和横向互动（和学习），以支持新的治理安排
- 7) 寻求与其他部门的协同效应

Recommendations CEWP-CECoSC Policy Report

- 1) Reduce risks & maximize benefits: Use the Three Points Approach (3PA) to plan a resilient (urban) water systems
- 2) Upgrade existing grey infrastructure using Blue-Green Infrastructure
- 3) Engage citizens and experts from other disciplines in Blue-Green Infrastructure implementation
- 4) Improve strategic, tactic and operational asset management
- 5) Establish an asset register of Blue-Green Infrastructure
- 6) Enable vertical and horizontal interactions (and learning) to support new governance arrangements
- 7) Look for synergies with other sectors

超越海绵城市转型，将极端天气事件纳入 3PA的范畴

**CHINA
EUROPE**
Water Platform



第十八届世界水资源大会，北京，2023年9月12日 - CEWP CECoS C 边会



中欧水资源平台 (CEWP) --海绵城市及其他：应用“三点法”建设具有气候韧性的城市地区

Time	Topic	Name
15:00 - 15:30	与会者入场、登记和就座	登记、设施和翻译方面的组织援助
15:30 - 15:40 15:40 - 15:50	开幕致辞、欢迎辞和今天的目的 介绍和视频 CEWP PI	Jasmin Schous 女士 荷兰 Diana Carlos 女士 葡萄牙
15:50 - 16:00	对CEWP CECoS C合作的思考 成果、政策、指导与3PA白皮书的衔接	Natalie Oonk-Abrahams 女士 荷兰
16:00 - 16:30 16:30 - 16:40	导言 白皮书 3PA 由 CEWP CECoS C 政策指导演变而来 欧盟/中国 未来的合作建议 休息	Frans van de Ven 先生 荷兰
16:40 - 17:10	10 分钟 PPT 回应白皮书及 3PA 提议下欧盟与中国未来在水与城市化方面的水合作建议 • NHRI • HRC • UU	Wang Leizhi 博士 中国 Zhi Yang 博士 中国 Dai Liping 博士 荷兰
17:10 - 17:30	总结与结论 闭幕和致谢辞	Klaas Groen 先生 荷兰 Jasmin Schous 女士 荷兰

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拥抱水

在城市环境中

EMBRACE
WATER

in the urban
environment

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