



## 在城市提倡可持续出行：宜可城生态出行方法论

### Advocating for sustainable mobility in cities: ICLEI's approach to ecomobility

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11.09.2019





DT2013



**5480万欧元/天**

马尼拉交通拥堵亏本

**54.8 million Euro**

Economic loss due to traffic  
congestion in Metro Manila

(JICA, 2018)



# 中国交通发展趋势

## Transport development trajectory



# 城市拥堵分级



2018年拥堵程度  
四年来最低

近90%城市拥堵  
同比下降或持平

## 城市立体诊断分级

单项进入TOP10个数

极高 (单项指标7个在TOP10以上)

北京、广州、上海

高 (单项指标5-6个在TOP10以上)

深圳、重庆、贵阳、佛山、哈尔滨、成都

中 (单项指标2-4个在TOP10以上)

长春、南宁、大连、沈阳、呼和浩特、杭州

低 (单项指标1个在TOP10以上)

合肥、南京、兰州、昆明、西安、济南、东莞、福州、苏州、天津、  
厦门、柳州、保定、洛阳、扬州、淄博、南通、台州、常州

极低 (单项指标无TOP10以上)

长沙、武汉、太原、烟台、南昌、郑州、青岛、西宁、石家庄、温州、  
唐山、宁波、无锡、绍兴、乌鲁木齐、泉州

# 中国汽车污染物排放量变化趋势

总体呈下降态势，基本保持稳定

**2920万吨**

**+0.4%**

CO排放量年均增长量

**342.2万吨**

**-0.2%**

HC排放量年均增长量

**583万吨**

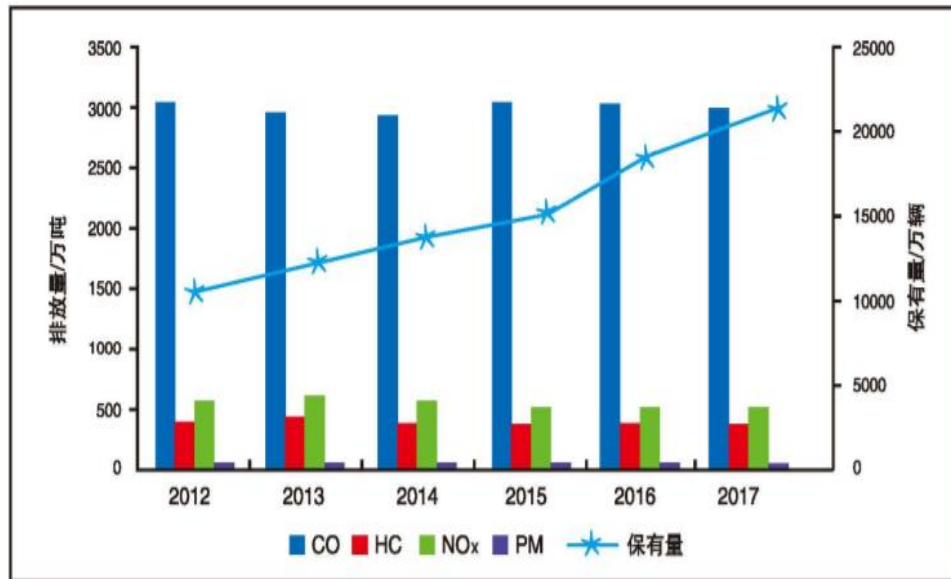
**-1.8%**

NOx排放量年均增长量

**49万吨**

**-3.8%**

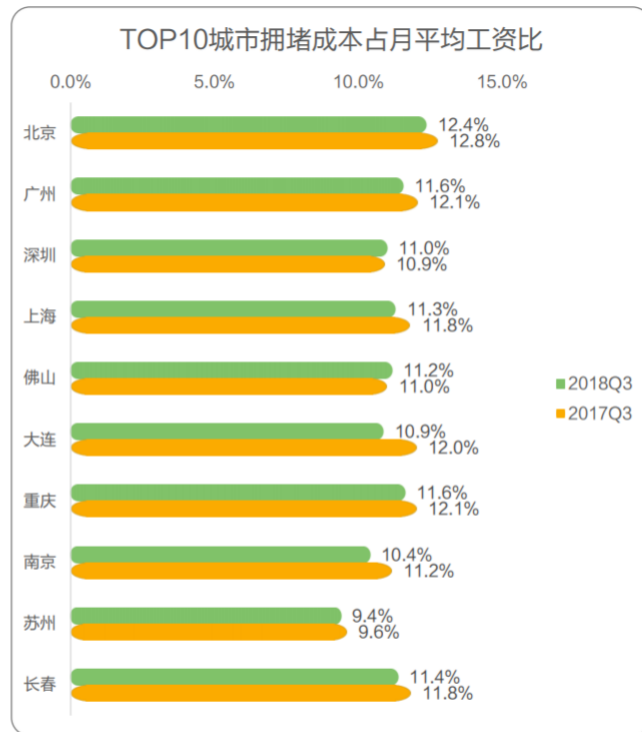
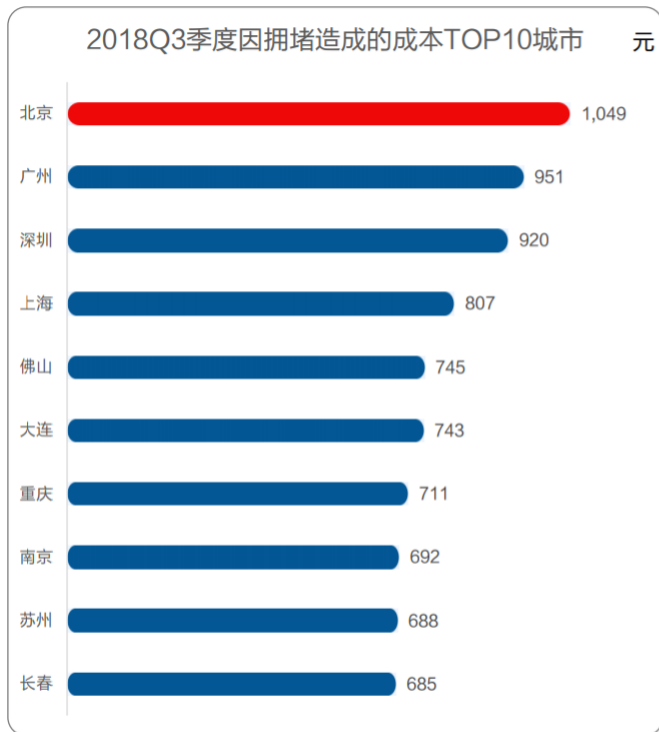
PM排放量年均增长量



Source: 中国机动车环境管理年报2018



# 北京月拥堵成本人均破千 因拥堵造成的时间成本占人均月平均工资12.4%



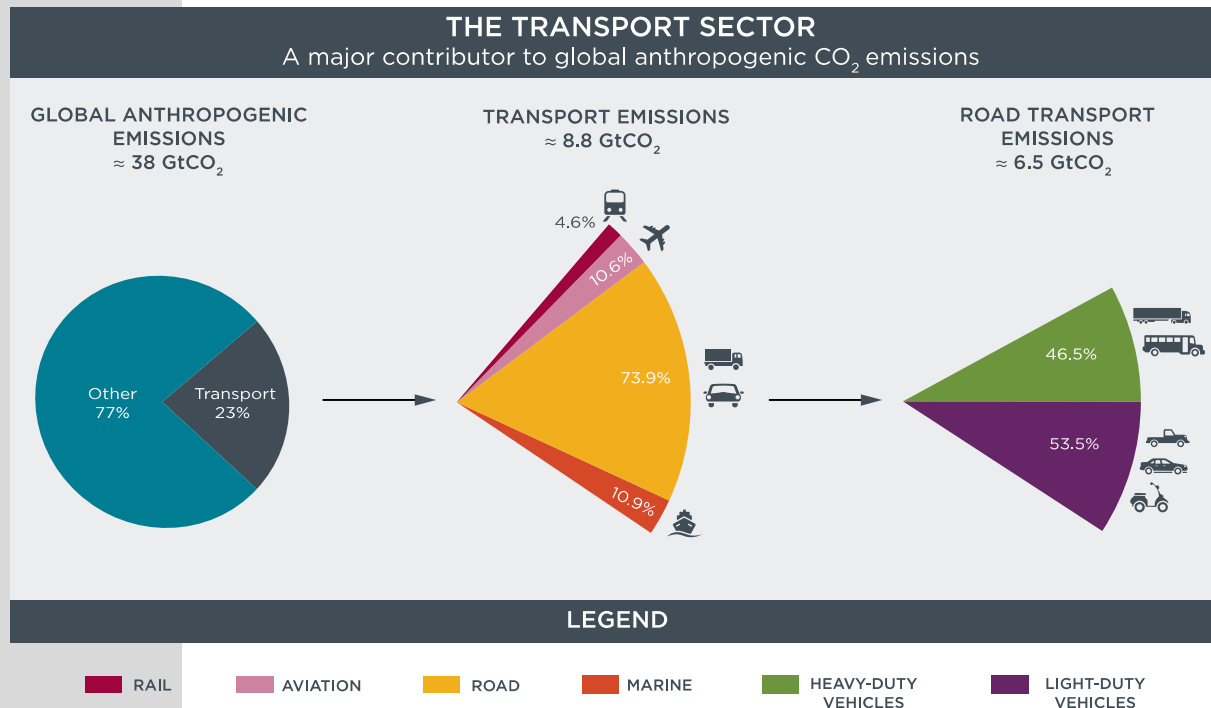
Source: 高德地图2018Q3中国主要城市交通分析报告

# 温室气体排放

占全球温室气体排放  
**23%**

道路交通（客车与货车）  
占其中的  
**74%**

私家车占超过  
**50%**





## 不只限于通勤!

以人为本的城市规划

健康

安全

公共空间的使用

提高经济发展机会

减少通勤时间

交通公平

低排放



# 什么是生态出行?

## What is EcoMobility?



# 多式联运街道

## MULTIMODAL STREETS

Who has the right of way?

谁拥有道路权？

1 PEDESTRIAN



2 TRANSIT



3 BICYCLE



4 AUTO



Source: Complete Streets Design Guidelines, Complete Streets Chicago





有停车位 50元

现在出发 推荐路线

**最快**  
34分钟 751米  
60路  
8站 · 2元 · 工业展览中心上车

47分钟 1.3公里  
2路  
11站 · 2元 · 工业展览中心上车

司机即刻接单, 可立即打车  
约17元

没有停车位 no parking space



15分钟 mins

推荐方案  
32分钟  
6.3公里 路口9个

方案二  
40分钟  
7.9公里 路口10个

自行车导航 三路线详情 开始导航

# 如何影响城市

## HOW ICLEI INFLUENCES CITIES

1 Policy/ Institutional Framework 政策/体制框架

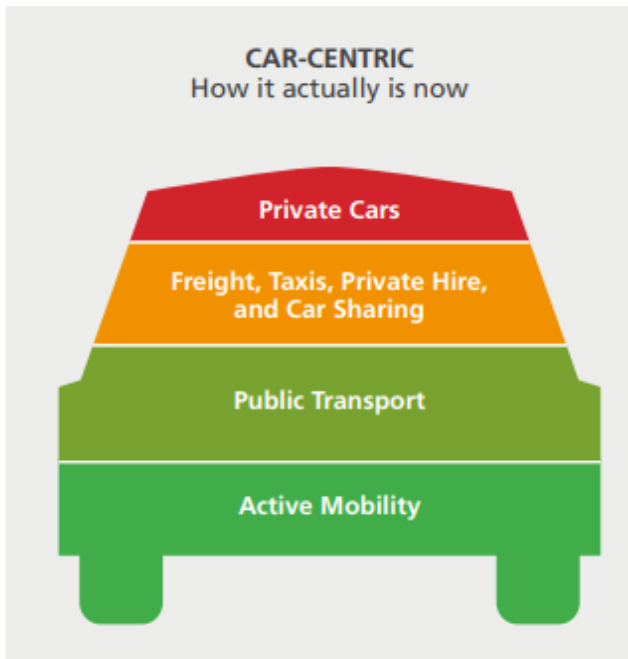
2 The People Factor 以人为本

3 Priority 优先

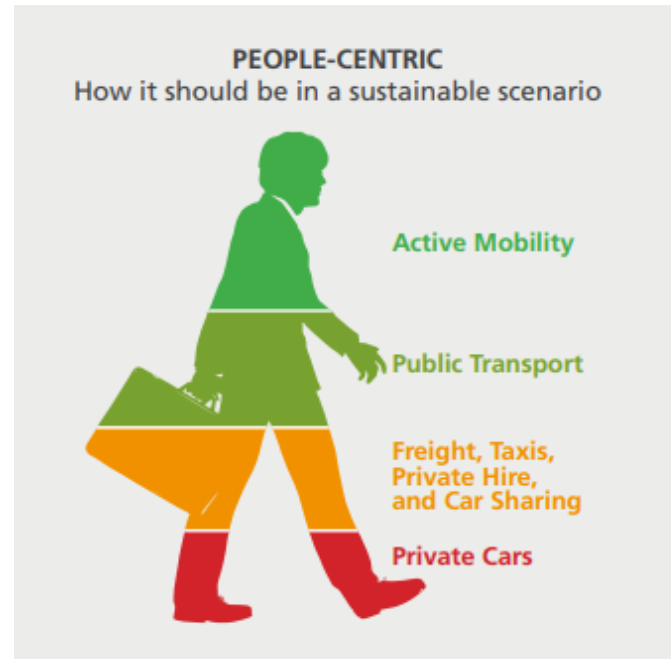


# 转型在即

## Changing mobility paradigm



moving the maximum number of **vehicles**



moving the maximum number of **people**

# 传统方式 vs 可持续发展方式

## TRADITIONAL VS SUSTAINABLE APPROACH

Traditional approach 传统方式	Sustainable mobility approach 可持续发展方式
Primary objective: <b>Traffic flow capacity</b> and <b>speed</b> 交通流量容量和速度	Primary objective: <b>Accessibility</b> and <b>quality of life</b> 通达性 & 生活质量
Political mandates and planning by engineers and experts 工程师和专家的政治任务和规划	Involve important stakeholders and community 让重要的利益相关者和社区参与进来
Focus on infrastructure 专注于基础设施	Combination of infrastructure, market, services, information and promotion 基础设施、市场、服务、信息和外联的结合
Investment-guided planning 投资导向型规划	Cost-efficient achievement of goals 以经济高效的成本实现目标
Reducing travel time for vehicles 缩短车辆的行驶时间	Providing quality, safe, affordable and accessible mobility options for all residents 为所有居民提供优质、安全、实惠和方便的移动选项

# 健康的城市生活： 荷兰乌德勒支

## Healthy urban living: Utrecht, Netherlands

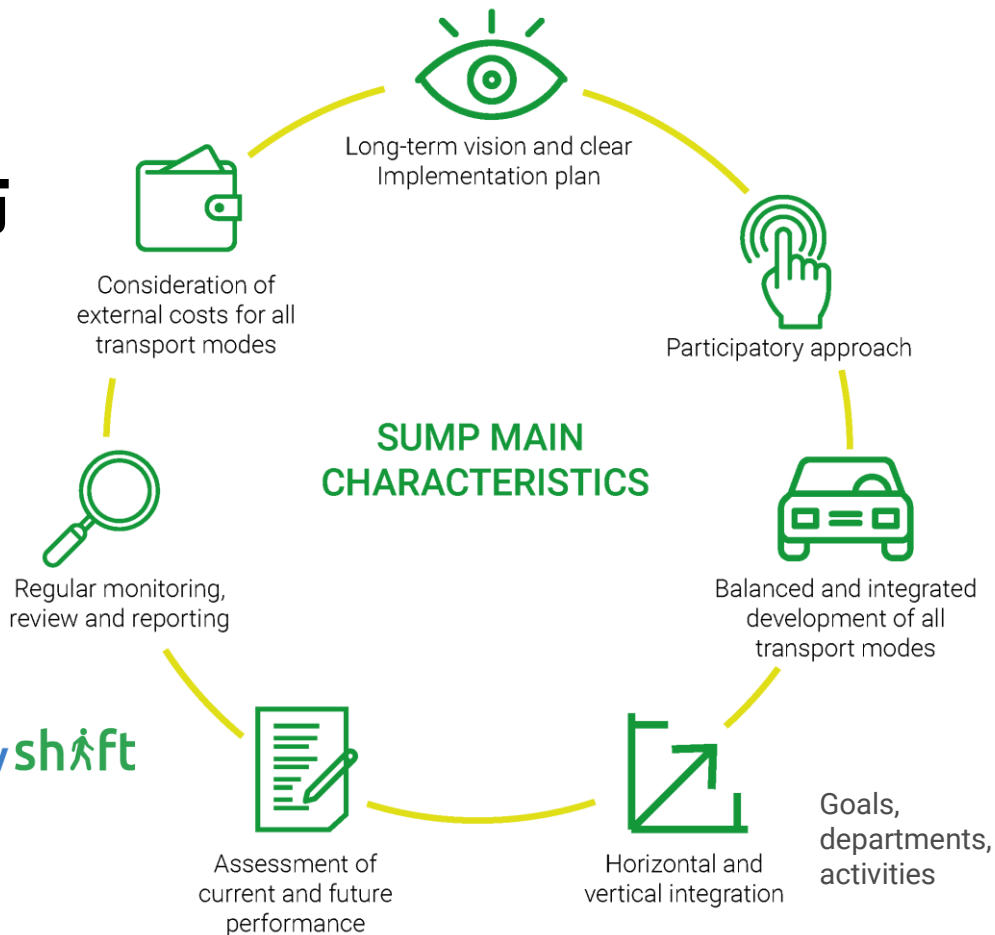


2nd  
Bicycle city in the  
world

Source: Utrecht city (2017)



# 可持续城市 交通计划

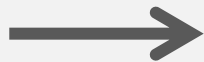


# 生态出行导向工具 EcoMobilitySHIFT+

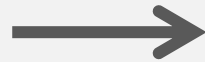
是地方政府衡量、分析从而具体实施、改善其交通体系的有效工具



Assess  
(自我) 评估



Analyze  
分析



Act 行动



衡量和评估  
城市交通表现



由城市  
内部进行



确定改进措施的  
优势和劣势



外部验证/审核  
来提供准则

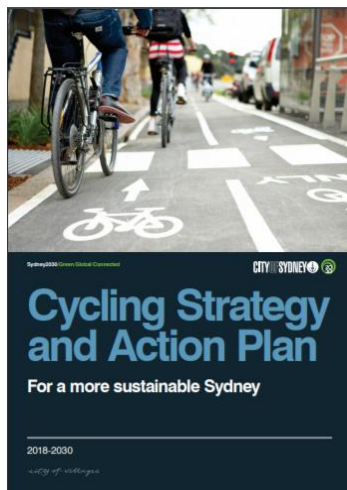
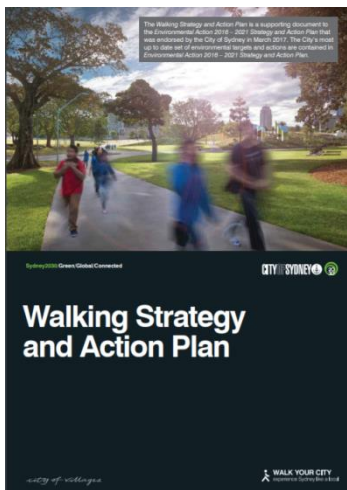


联合设定优先方案



与利益相关者和跨部门  
的合作与实施

# 澳大利亚悉尼 Sydney, Australia



“There is sound economic justification for finishing the bike network. Building cycleways has a benefit cost ratio far higher than the transport projects recently proposed by the State Government, **with a return of at least \$2.68 worth of benefits for every \$1 invested**” 每投资1美元，至少获得2.68美元的收益”

Clover More, Lord Mayor of Sydney 悉尼市长

## How fast is the City of Sydney growing?

### Population



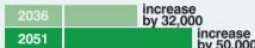
Current population  
**224,000+ people**  
in the City of Sydney area<sup>1</sup>  
2030 projection  
**300,000 people**<sup>2</sup>

### Workforce

**437,000+ people**  
currently work  
in the city<sup>3</sup>



### Job growth



### Transport



Extra peak hour trips into the city centre by 2031  
**45,000+**<sup>4</sup>

Cost of traffic congestion to Greater Sydney

**12.6 billion a year by 2030**<sup>5</sup>



## Where are the opportunities?



**52%**  
of trips into the city centre come from a heavily populated inner ring of neighbourhoods<sup>6</sup>

**Nearly 1/3**  
of City residents already ride a bike or walk to work



**151,700 car trips**  
of less than five kilometres made in the City of Sydney each day<sup>7</sup>



**40%**  
of City of Sydney households are car-free<sup>8</sup>



(Source: Sydney City)

# 德国莱比锡 Leipzig, Germany

- Car-free center 无车区
- Car-reduced center 汽车减少区域
- Tram network 电车网络作为骨干
- Walking and cycling network 加强慢行网络
- Electric & shared mobility 电动和共享车





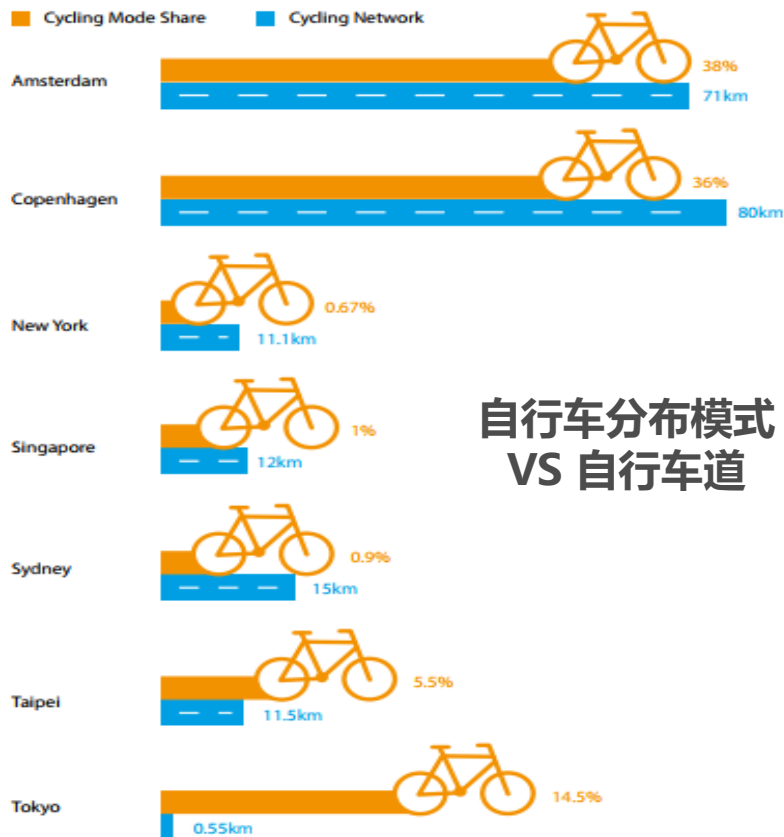


阿姆斯特丹、新加坡、  
东京等  
Amsterdam, Singapore,  
Tokyo, etc.

他们有什么共同点?  
What do they have in common?

## CYCLING MODE SHARE VERSUS CYCLING NETWORK\*

\*Cycling network per 100,000 people

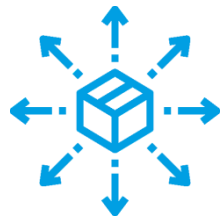


自行车分布模式  
VS 自行车道

(Source: CLC Singapore)

# 宜可城如何支持城市？

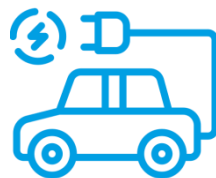
## How do we help cities?



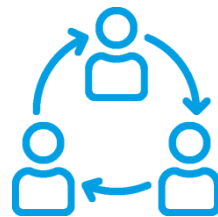
评估现实情况



确定优先事项和  
支持改进措施



连接城市以获得  
融资



提供知识

# 宜可城如何支持城市?

## How do we help cities?

### 行动/活动领域

减少对私家车的依赖

设立可持续城市交通规划

绿色汽车采购

生态出行评估

知识库

生态出行理念  
宣传活动

实施创新的  
城市交通解决方案

### 举措和项目例子



生态出行联盟



CIVITAS



智慧与生态  
公共采购



生态出行导向  
评估和审计



Eltis



生态出行盛典  
和大会



变革性的  
城市交通倡议网络

# 生态出行联盟 EcoMobility Alliance



是一个由具有抱负及愿景的地方政府所组成的组织，由专家和企业提供支持，旨在成为国际生态出行领域的佼佼者。



**23**

生态出行联盟城市



**47,600,000**

被联盟影响人口



**34**

合作工作伙伴



**30+**

交通项目



**5159 km**

脚踏车设备



**75 %**

联盟城市汇报二氧化碳  
碳排放



[www.ecomobility.org](http://www.ecomobility.org)

# 生态出行联盟 EcoMobility Alliance



# EcoMobility

A Program of ICLEI - Local Governments of Sustainability

34 partners



Wuppertal Institut  
für Klima, Umwelt, Energie  
GmbH



Leipzig - city of culture

- working site of Johann Sebastian Bach
- home of the world famous Thomanechor
- a place for modern art and architecture



ISSUES	RESPONSIBILITY	TIMELINE
POP DENSITY	PHYSICAL PLANNER	IN NEXT 6 MONTHS
ROAD QUALITY	PHYSICAL PLANNER + ENGINEER	5 YEAR 2016-2021 NEXT CHOICE 2022
WALKING AND CYCLING	MAYOR'S OFFICE + MOBILITY TEAM	NEXT 6 MONTHS
MOBILITY TEAM TO IMPROVE HEALTH	MAYOR'S OFFICE + MOBILITY TEAM	IN NEXT 3 MONTHS
SHADE TREES + ALL GREENS	ENVIRONMENT + PHYSICAL PLANNING	ALIGN WITH EVENTS ABOVE

SUSTAINABLE MOBILITY OBJECTIVES	ACTIONS	RESPONSIBILITY	TIMELINE
IMPROVE CYCLING FACILITIES	WORK WITH SCHOOLS + BUSSES TO PROVIDE BIKE PARKING	TEAM: PLANNING, ENGINEERING, EDUCATION, FINANCE	IN NEXT 6 MONTHS - 1 YEAR
IMPROVE SECURITY	POLICE TO FOCUS ON DANGEROUS AREAS	PLANNERS POLICE	IN NEXT 2 MONTHS
IMPROVE SAFETY FOR CHILDREN	IMPLEMENT SAFE CROSSINGS FOR CHILDREN @ SCHOOLS	AMEND/SASAS, ECO SCHOOLS INITIATIVE	6 MONTHS
SENSITISE POPULATION TO NMT	NO VEHICLE DAY ON ONE OF THE ROADS	TRAFFIC POLICE, MUNCIP. ENGAGEMENT TEAM	NEXT 3 MONTHS
IMPROVE BODA-BODA SERVICE	ENGAGE WITH BODA-BODAS	MOBILITY TASK TEAM	ONCE TASK TEAM IS SET UP

③ TR SERV (PROVISION OF TRANSPORT, W INTEGRATED M)

STRENGTHS

- MATATUS ARE FE
- BODA BODAS ARE
- MATATUS + BOD
- WATER-TRANS
- AIRPORT
- NEW BUSSES ON
- MATATA INDUSTRY
- TRAFFIC LIGHT
- PHYSICAL PLAN

WEAKNESSES

- BODA-BODAS D
- NO PUBLIC B
- NEED MORE
- VERY FEW W
- NEED NIGHT
- DIFFICULT TO
- ROADS ARE N
- DRIVERS ATT
- NO GAZETTE
- DIRTY EMISS
- NO HELMETS/S
- NO SAFE CROSS

# CAPACITY BUILDING 能力建设 JOINT INITIATIVES 联合倡议

WHERE DO WE WANT TO GO?



2013 韩国水原 Suwon





# 2015 南非约翰内斯堡 JoBurg



2017 中国高雄



# 以人为本的社区改造



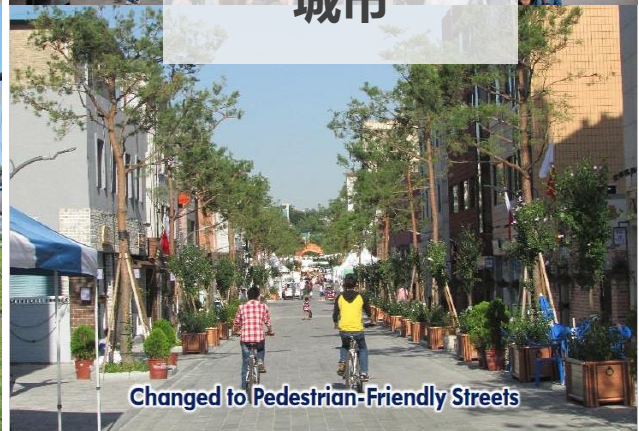
美化社区



居民享受更多的公共空间



友善多式联运城市



Changed to Pedestrian-Friendly Streets

# 城市出行变革国际倡议

## Transformative Urban Mobility Initiative (TUMI)



Jinja, Uganda 乌干达金贾 2018



Institute for Transportation & Development Policy





谢谢!  
Thank you!

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