

# Introduction to cooperation between GIZ and Shenzhen

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可持续交通在中国  
SUSTAINABLE TRANSPORT IN CHINA



# Overview

- GIZ – Our Approach to low-carbon transport
- Good Practice from Germany
- Cooperation with Shenzhen

# Who is GIZ?

## Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH (German International Cooperation)

German federally-owned enterprise

International cooperation  
for sustainable development

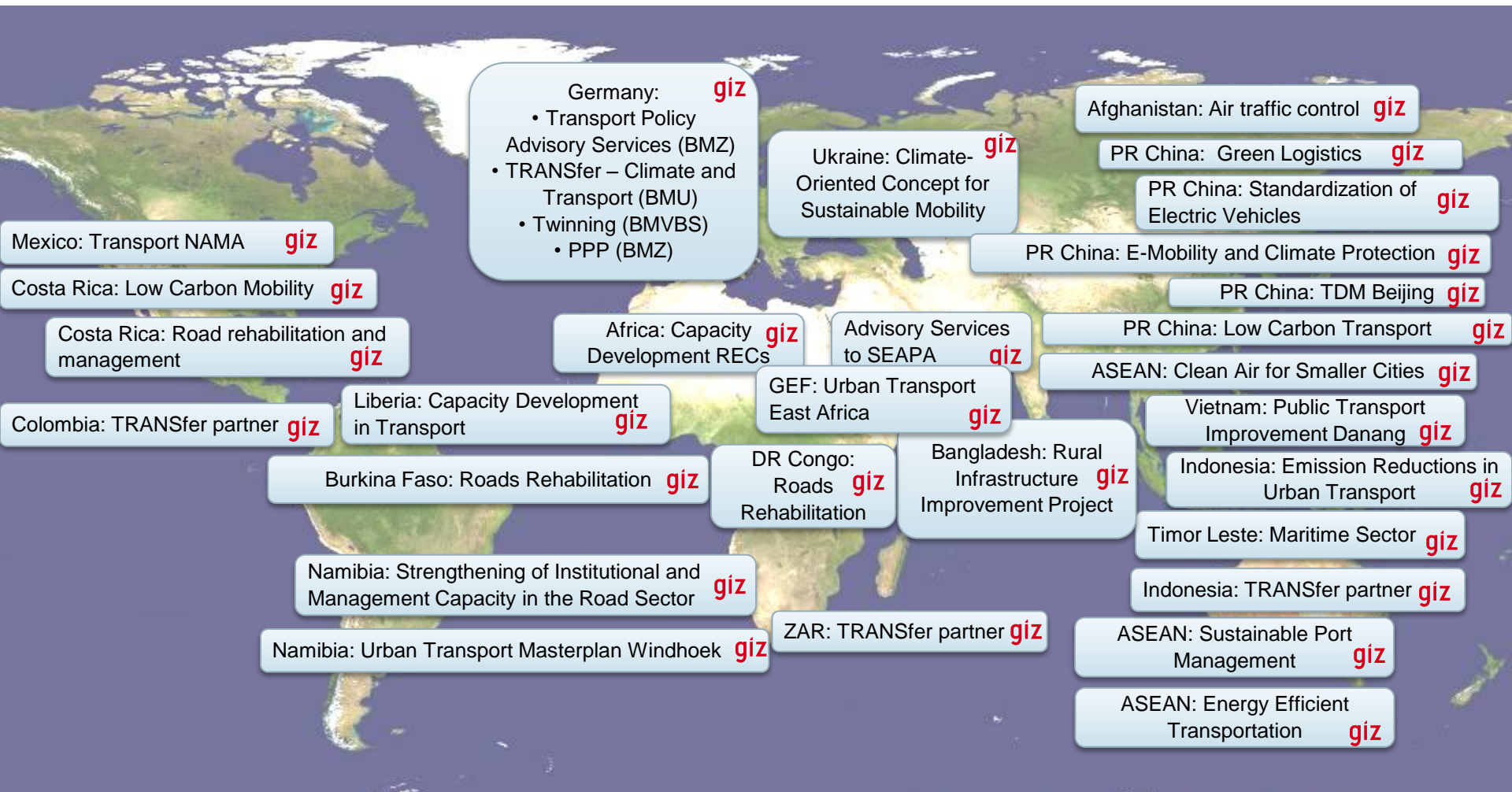
Operates in more than  
130 countries

Business  
volume 2011  
about 2 billion  
EUR



Approx. 17,000  
staff members

# Ongoing GIZ Transport and Mobility Projects



# GIZ in China

- 30 years of experience in Sino-German technical cooperation
- Portfolio includes policy advice, technical expertise, knowledge transfer, capacity building, and organisational development
- Offices in Beijing, Shanghai and Nanjing
- Turnover 2011 was 31 million EUR
- approximately 200 staff (50 Germans and 150 national staff)



# GIZ China – Sustainable Transport Programme

## GIZ 中国 – 可持续交通领域



*Funded by:*

**Federal Ministry for the Environment, Nature  
Conservation and Nuclear Safety, Ministry of  
Economic Cooperation and Development, Ministry for  
Economics**

"Our mission is to foster climate-friendly mobility and sustainable transport in close cooperation with our partners in China."

“在实施低碳交通的过程中，中国 将实现很多可持续利益，如更好的空气质量，交通拥堵的减少以及道路交通安全性的提高等。”



# What we do

- Transport programme established in **2010** by Federal Ministry for Environment, Nature Conservation and Nuclear Safety
- Focus: **Development of low carbon transport system**
- Four major areas:



Climate change policies and measures



Sustainable Urban Transport



Electric-Mobility and alternative fuels



Freight transport and green logistics

- Cross-cutting topic: **carbon accounting and emission evaluation**

# What is a Low Carbon Transport?

## System Level

### Low-Carbon Modes



Walking, cycling, public transit  
(GHG reduction through  
a high modal share of  
efficient modes)



Towards transit-oriented  
development  
(GHG reduction through  
less vehicle kilometers)

Mixed-use, dense  
cities

+ Planning, organization  
and enabling institutions

## Vehicle Level

### Energy Efficient Vehicles



For private and  
public transport  
(GHG reduction through  
better use of energy)



Based on  
life-cycle assessment  
(GHG reduction through  
renewable energy)

Low-Carbon Fuels



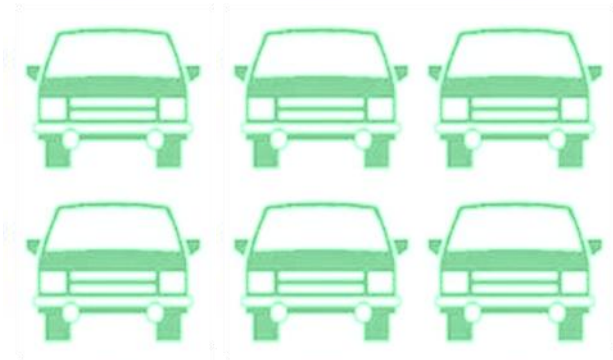
# Comprehensive Approach to Low Carbon Transport

**AVOID**  
unnecessary trips

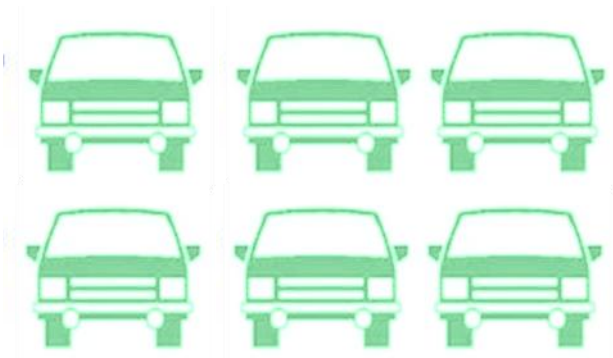
**REDUCE**  
Vehicle KM  
Traveled  
(VKT)



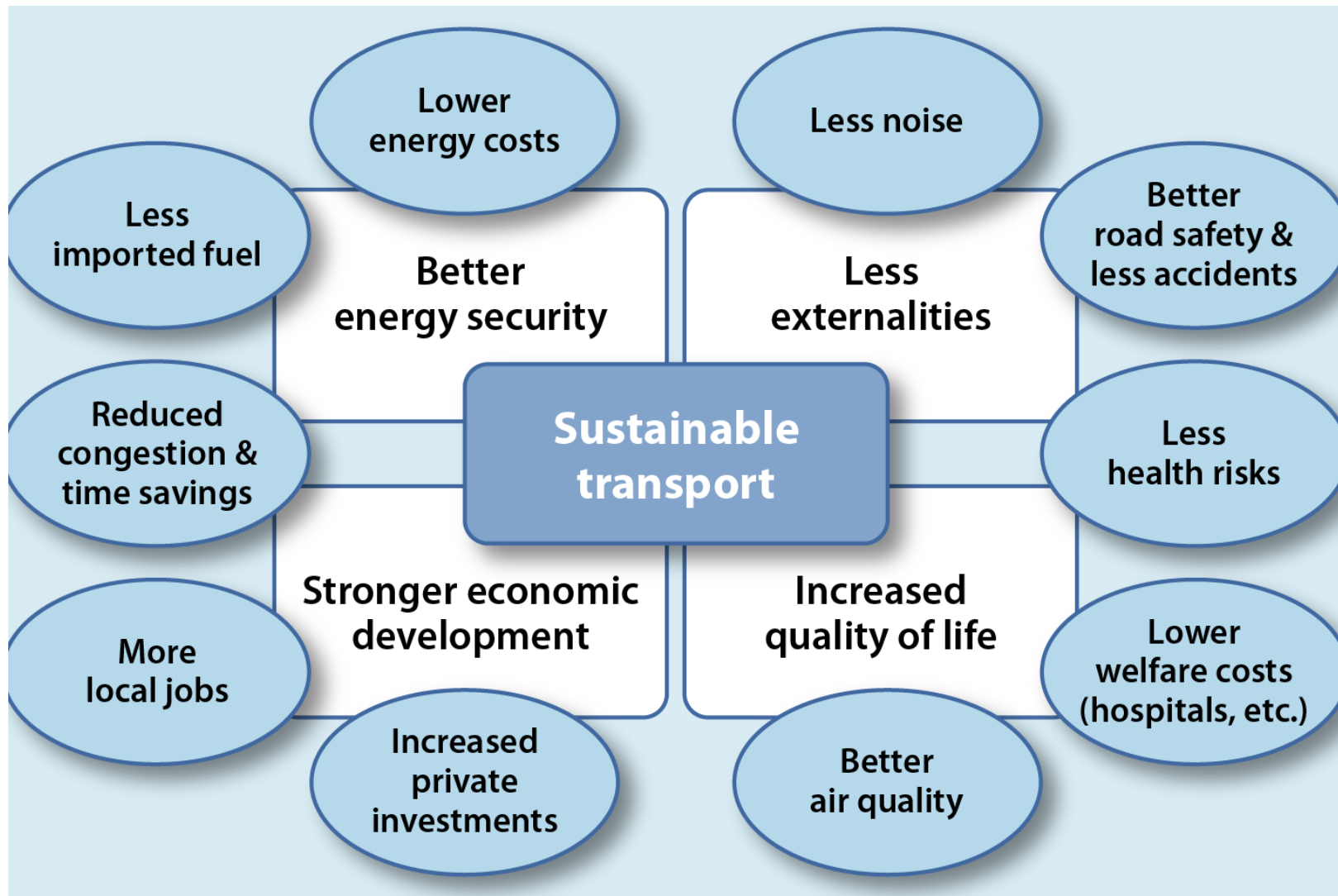
**SHIFT** modes



**IMPROVE** vehicles  
low carbon fuels



# The aim: Achieve co-benefits!



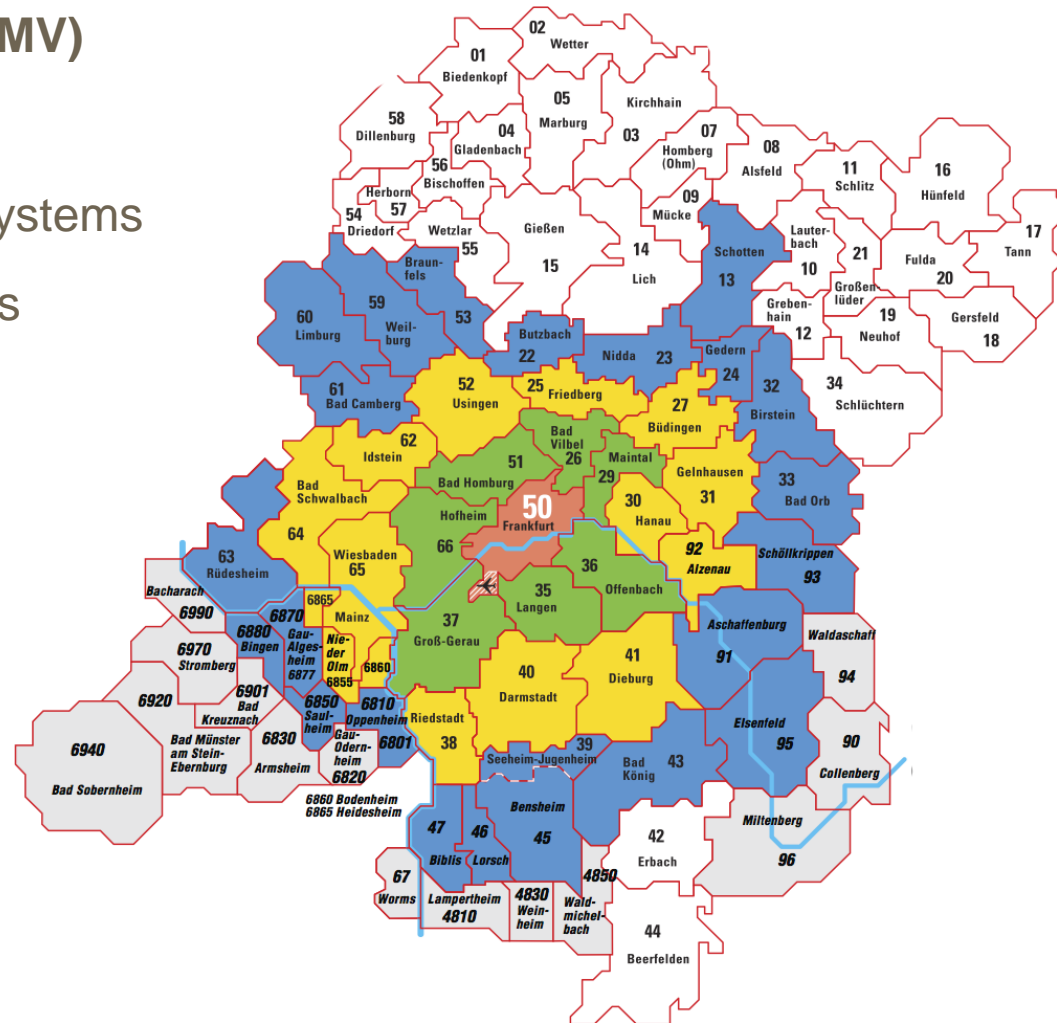
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# Example 1: Transport Alliance Frankfurt

## Rhine-Main Transport Alliance (RMV)

- Started in 1995
- Integration of 112 different fare systems
- Managing 153 transport operators
- Board includes
  - 15 rural districts
  - 4 large cities (e.g. Frankfurt)
  - 7 medium-sized towns
  - Provincial government (Hessen)
- Tendering rail services
- Joint marketing
- Integrated timetable/interchange



# Transport Alliances in Germany



## Verkehrs- und Tarifverbünde in Deutschland

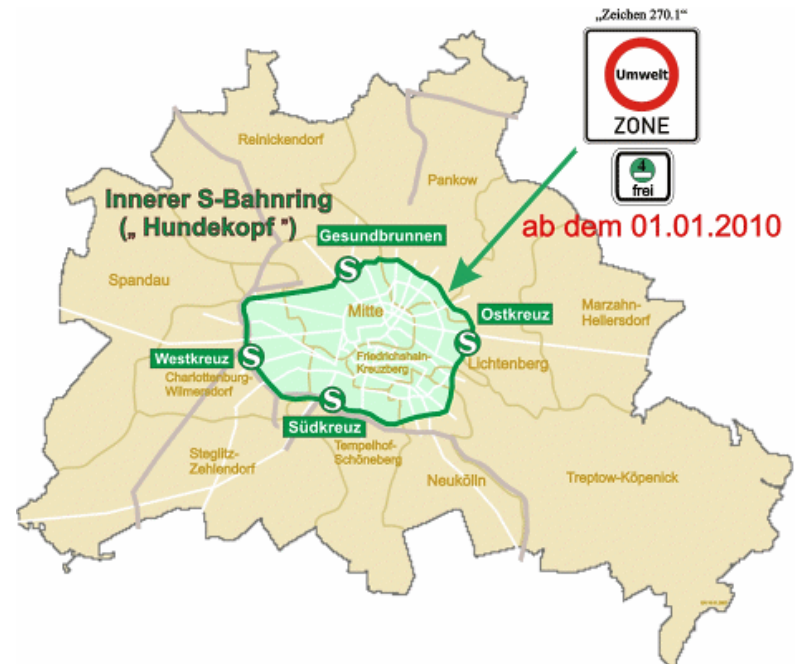




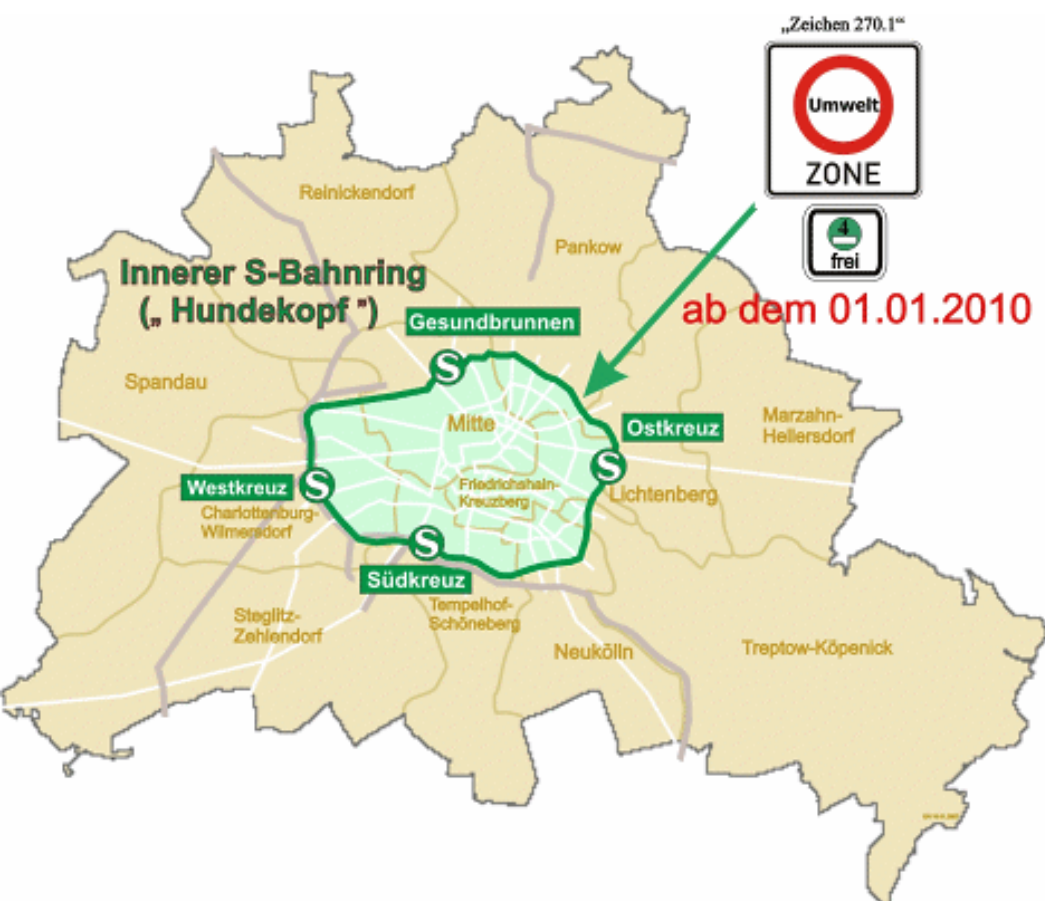
# Frankfurt Commuter Rail – S-Bahn



## Example 2: Low Emission Zone Berlin



# Environmental Zone 环境保护区



## Fleet modernisation 车型结构现代化

- new vehicles 车辆更新
- refitting of vehicles 车辆改装

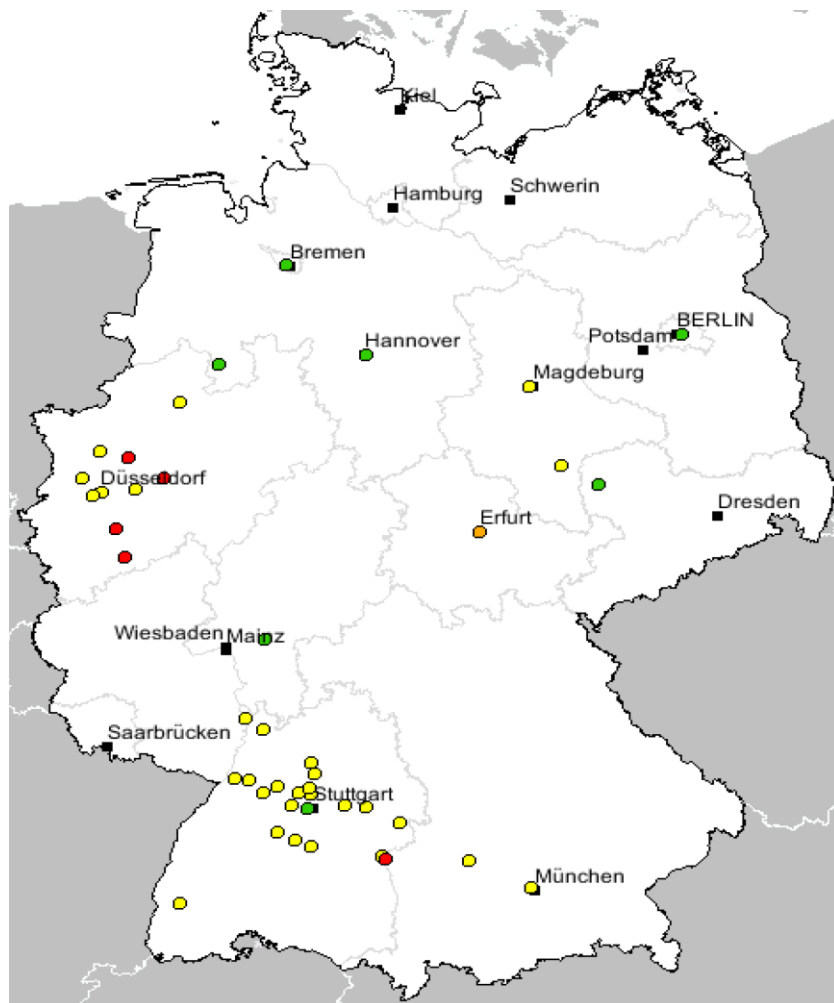
## Decrease of emissions\* 减少尾气排放

- diesel exhaust particulates 柴油颗粒物: -58%
- NOx: -20 %
- NO2: -5 %
- PM10: -7 %
- traffic induced carbon particulate matters
- 交通碳颗粒物排放: - 50%

\*Second level as compared to situation without Zone

# Low Emission Zones in Germany

## 德国低排放区



LEZ scheduled  
将要实行低排放区的城市



LEZ stage 1  
ban on vehicles emission class 1  
低排放区第一阶段  
禁止车辆的排放标准为1级







LEZ stage 2  
ban on vehicles emission class 1+2  
低排放区第二阶段  
禁止车辆的排放标准为1级和2级



LEZ stage 3  
ban on vehicles emission class 1+2+3  
低排放区第三阶段  
禁止车辆的排放标准为1级、2级、3级

# Low Emission Zones in Germany

## 德国低排放区

Emissions class 排放等级	1	2	3	4
Sticker 标签	No Sticker 无标签 			
Requirement for diesel vehicles 对柴油车辆的要求	Euro 1 or worse 欧I标准或低于欧I标准	Euro 2 or Euro 1 particulate filter 欧II标准或者欧I标准安装 颗粒物过滤器	Euro 3 or Euro 2 particulate filter 欧III标准或者欧II标准 安装颗粒物过滤器	Euro 4 or Euro 3 particulate filter 欧IV标准或者欧III标准安 装颗粒物过滤器
Requirement for petrol vehicles 对汽油车辆的要求	Without a catalytic converter 没有安装催化转化器			Euro 1 with catalytic converter or better 欧I标准并安装催化转化器

Emissions classes and main rules can be used by cities for LEZs in Germany. The cities or regions then decide whether, where and when to implement a LEZ, and what sticker will be required. The stickers are valid for all LEZs in Germany.

排放等级和主要规则适用于德国所有实施低排放区政策的城市。城市或地区有权决定是否、何时、何地实施低排放区政策，并且确定标签的要求，标签在德国所有低排放区内有效。

(35. Federal emission Control Ordinance – Marking Ordinance) (35号联邦排放控制条例-标识条例)



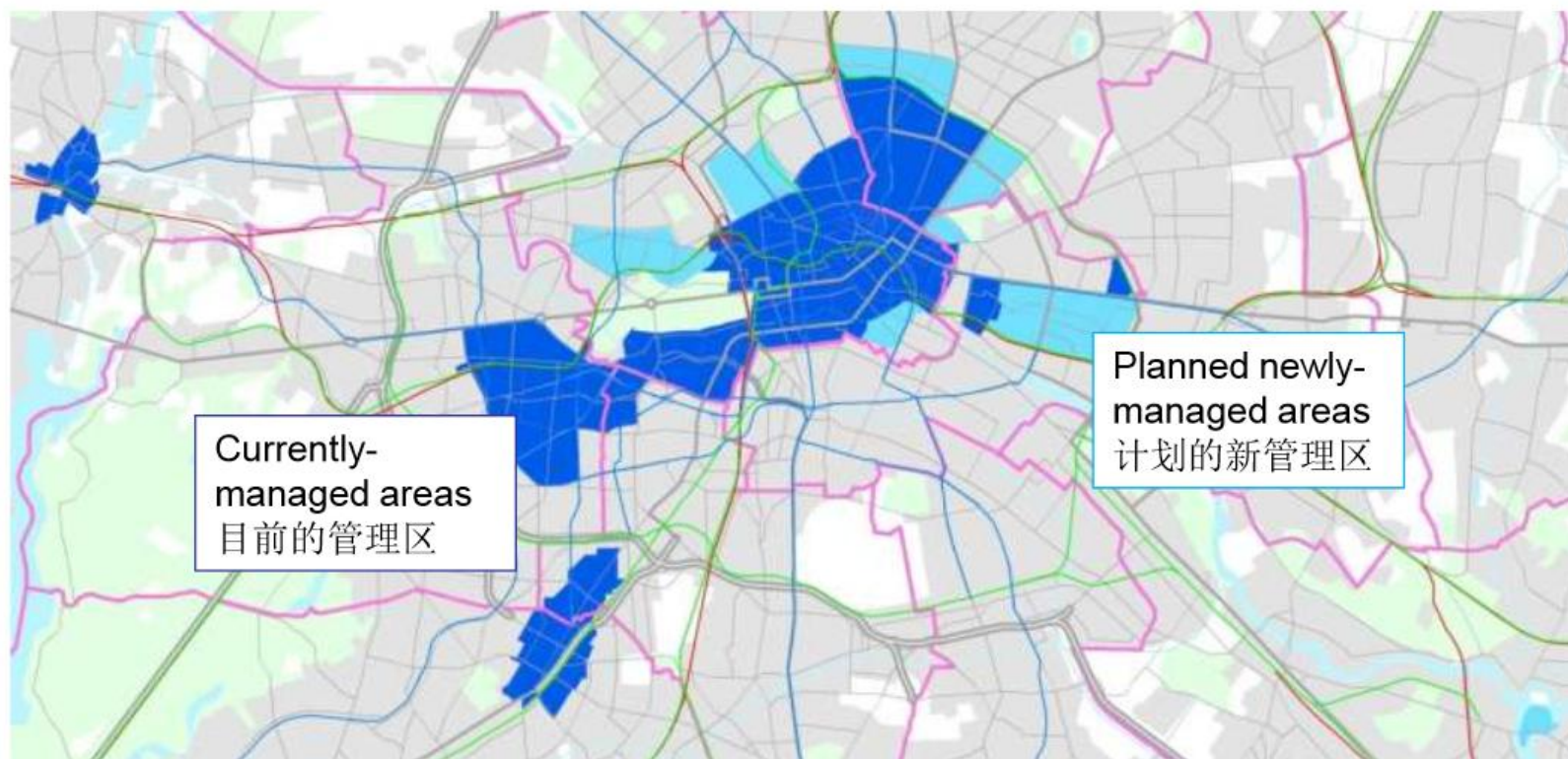
## Example 3: Parking Management in Berlin

### Parking management in Berlin 柏林的停车管理

- About 80,000 parking spaces with fees on public streets  
在公共街道上约有80,000个收费停车位
- Currently a further 26,000 managed parking spaces are being planned  
目前另外26000个管理的停车位正在计划中
- Plus an unknown number of parking spaces in privately managed areas (underground or multi-storey car parks, parking sites)  
此外在私人管理区（地下或多层停车场，停车场地）还有一些停车位，数量不详

# Parking zoning in master plan

## Parking management in Berlin 柏林的停车管理



Source: LK Argus 来源: LK阿格斯

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# Objectives of Cooperation

- The objective of the cooperation is to actively exchange in the development of policy, technology and tools for the development of sustainable urban transport systems.
- This includes congestion mitigation, reducing greenhouse gas emissions and preventing further negative environmental impacts of urban transport.

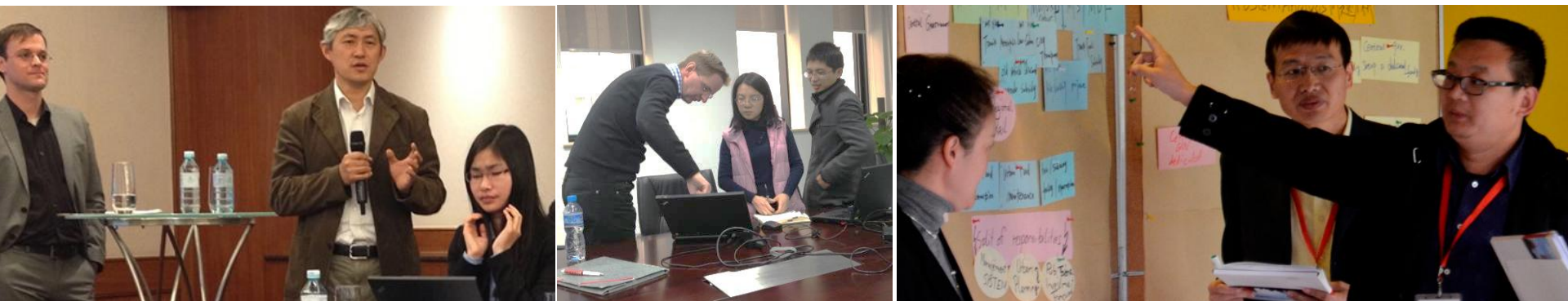
# Form of Cooperation

- BMU has commissioned the GIZ to implement urban transport related advisory services in Chinese cities.
- On behalf of BMU and in the context of BMU's *International Climate Initiative* projects, GIZ will implement cooperation with TCSM.
- GIZ is providing long-term as well as short term experts to implement the activities and TCSM will allocate staff-time to joint activities



# Areas of Cooperation

- Facilitating international dialogue: Exchange of government officials, workshops, conferences, study tours
- Capacity building: Access to key international experts, joint studies, trainings, etc.
- Development of practical tools: databases, emission models, etc.



Thank you  
谢谢

