



Promoting EU-China Innovation Cooperation 促进中欧创新合作

Beijing – 4th November 2014

2014年11月4日 北京



EU-China Policy Dialogues Support Facility II
中国-欧盟政策对话支持项目二期

Structure of EU-China Policy Dialogue

中欧政策对话层次

EU-China Summit 中欧领导人峰会

High-Level Dialogues 高级别对话

Strategic 战略

- Regional & global issues
- Legal issues / rule of law
- Sustainable urbanisation partnership
- **China Europe Water Platform**
- 区域和全球议题
- 法律相关议题
- 可持续城镇化合作伙伴
- **中欧水资源交流平台**

Trade & Economic 经贸

- Agriculture & food security
- Public health
- Transport, civil aviation, maritime, logistics
- ICTs, Science & Technology
- Environment, climate change
- Trade issues
- 农业和粮食安全
- 公共医疗卫生
- 交通、航空、海运、物流
- 信息通讯、科技
- 环境、气候变化
- 贸易

People-to-People 人文

- Higher education cooperation
- Culture
- Youth work
- Business management
- 高等教育合作
- 文化
- 青年工作
- 商务管理



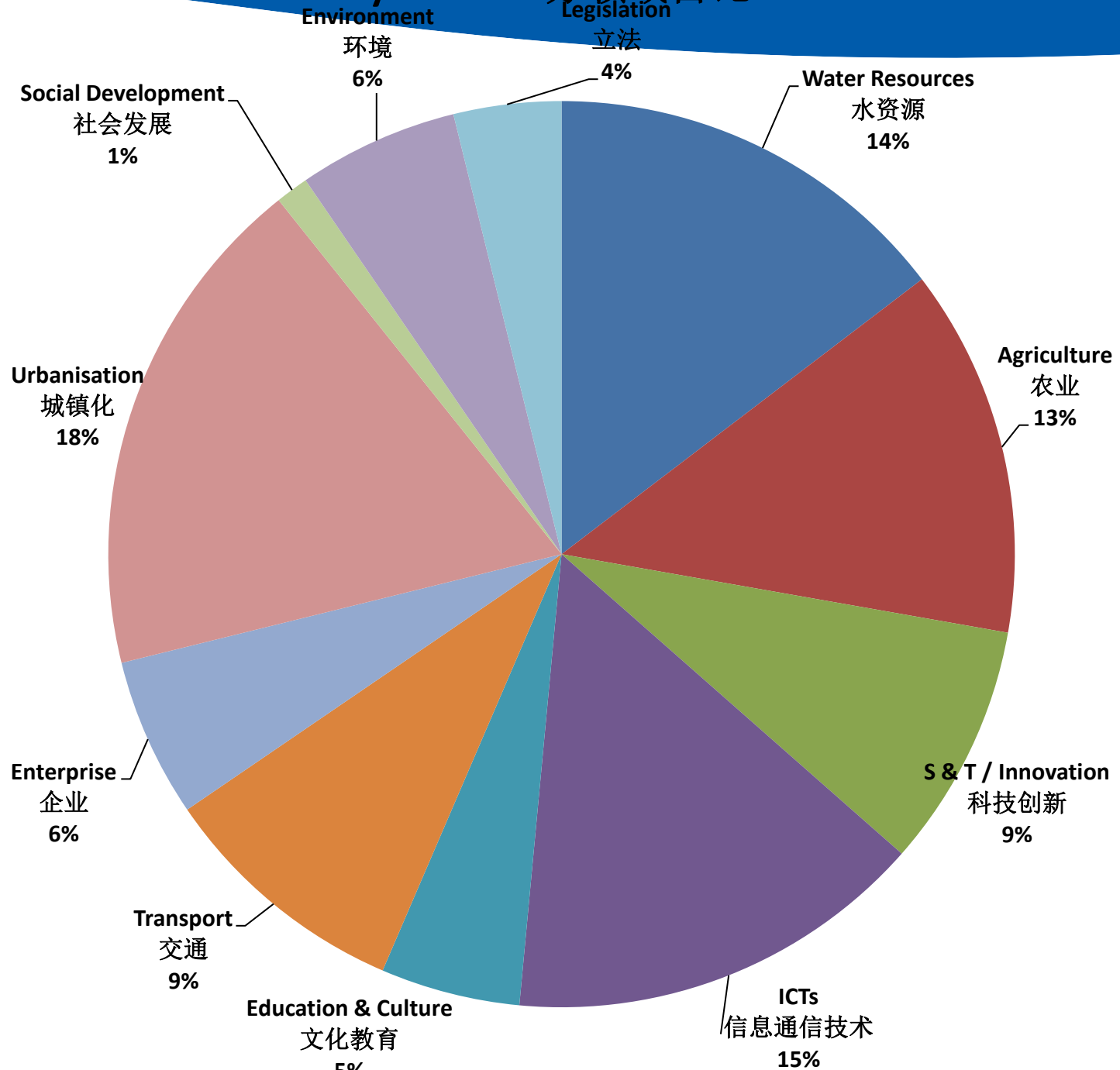
Examples of sectors supported since 2012

自2012年起 项目支持过的领域

- ❑ China Europe Water Platform (DG ENV / DEVCO & MWR)
- ❑ 中欧水资源交流平台（环境总司/发展总司和中国水利部）
- ❑ Sustainable Urbanisation Partnership (DG ENER & NDRC)
- ❑ 可持续城镇化合作伙伴（能源总司和中国发展改革委员会）
- ❑ Transport & Urban Mobility (DG MOVE & NDRC / MoT)
- ❑ 交通和城市流动性（交通总司和中国交通部）
- ❑ Agriculture and Food Security (DG AGRI & MoA)
- ❑ 农业和粮食安全（农业总司和中国农业部）
- ❑ ICT: Smart Cities and Broadband Policy (DG CNECT & MIIT)
- ❑ 信息通信技术：智慧城市和宽带政策（通信总司和中国工信部）
- ❑ Product Eco Design (DG ENTR & MIIT)
- ❑ 产品生态设计（企业总司和中国工信部）
- ❑ Environment: Green Economy, PM 2.5 Air Quality, TEEB (DG ENV & MEP)
- ❑ 环境、绿色经济、PM2.5控制、生物多样性（环境部司和中国环保部）
- ❑ Youth Work, Culture, Higher Education Platform (DG EAC & MoE)
- ❑ 青年交流、文化、高等教育平台（教育文化总司和中国教育部）
- ❑ Social Assistance (DG EMPL & MoCA)
- ❑ 社会救助（就业总司和中国民政部）

Breakdown by sector

分领域占比





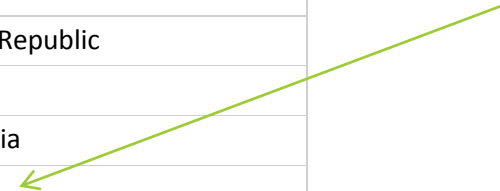


Global Innovation Index全球创新指数

[Source: <https://globalinnovationindex.org/content.aspx?page=data-analysis>]

Rank	Country
1	Switzerland
2	United Kingdom
3	Sweden
4	Finland
5	Netherlands
6	United States of America
7	Singapore
8	Denmark
9	Luxembourg
10	Hong Kong (China)
11	Ireland
12	Canada
13	Germany
14	Norway
15	Israel
16	Korea, Rep.
17	Australia
18	New Zealand

Rank	
19	Iceland
20	Austria
21	Japan
22	France
23	Belgium
24	Estonia
25	Malta
26	Czech Republic
27	Spain
28	Slovenia
29	China
30	Cyprus
31	Italy
32	Portugal
33	Malaysia
34	Latvia
35	Hungary



Global Innovation Index (GII) : Human Factor

全球创新指数(GII): 人因素

- Theme of the Global Innovation Index (GII) 2014 is “The Human Factor in Innovation,” exploring role of human capital in innovation process
- 2014年全球创新指数的主题是“创新中的人因素”，旨在探索人力成本在阜新过程中所起的作用
- Top 25 countries consistently score high have strengths in innovation infrastructure, including ICTs; knowledge workers, innovation linkages; creative goods and services and online creativity.
- 25个一直获得高分值的国家在基础设施创新方面实力都很强，包括信息通信技术、知识型劳动力、创新之间的有机联系、出色的产品和服务以及在线创造力
- Top-scoring middle-income economies are narrowing the gap on **innovation quality** with **China** in the lead, followed by Brazil and India.
- 高分中中等收入经济体正在缩小在**创新质量**方面的差距，中国处于领先地位，巴西和印度紧随其后
- As innovation becomes global, a growing number of emerging economies are confronted with complex balance between talent outflows (e.g. people seeking education abroad) and inflows (high performers return home to innovate and create local jobs)
- 随着创新的日益全球化，越来越多的新兴经济体面临着人才外流（如去国外求学）和回流（高级人才回国进行创新并为当地创造就业机会）间复杂的平衡问题

Why Innovation is important for China's future development

Well-being of citizens

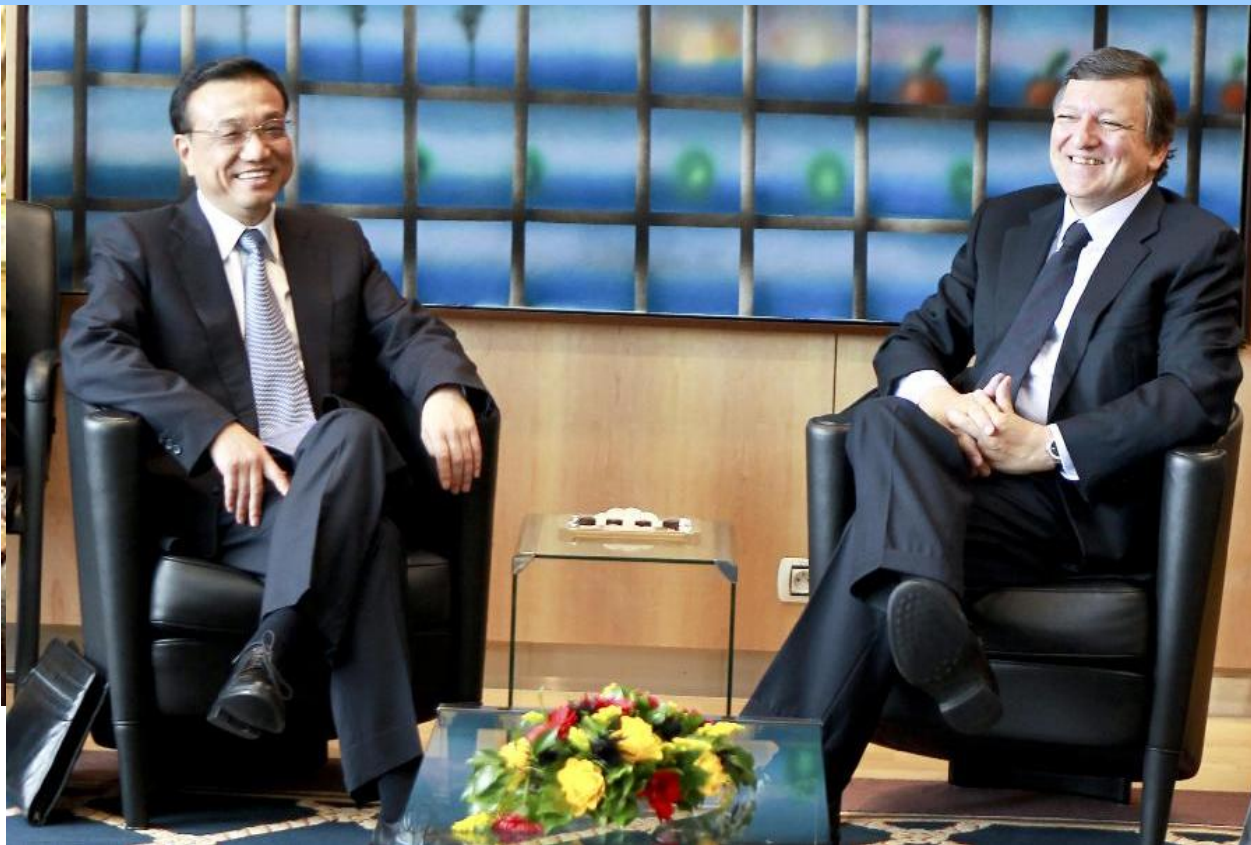
为什么创新对中国未来发展和建设小康社会十分重要



Establishing EU-China Innovation Dialogue 建立中欧创新对话机制

In May 2012, consensus was reached on establishing the mechanism of China-EU Innovation Cooperation Dialogue.

2012年5月中欧双方同意建立中欧创新合作对话机制

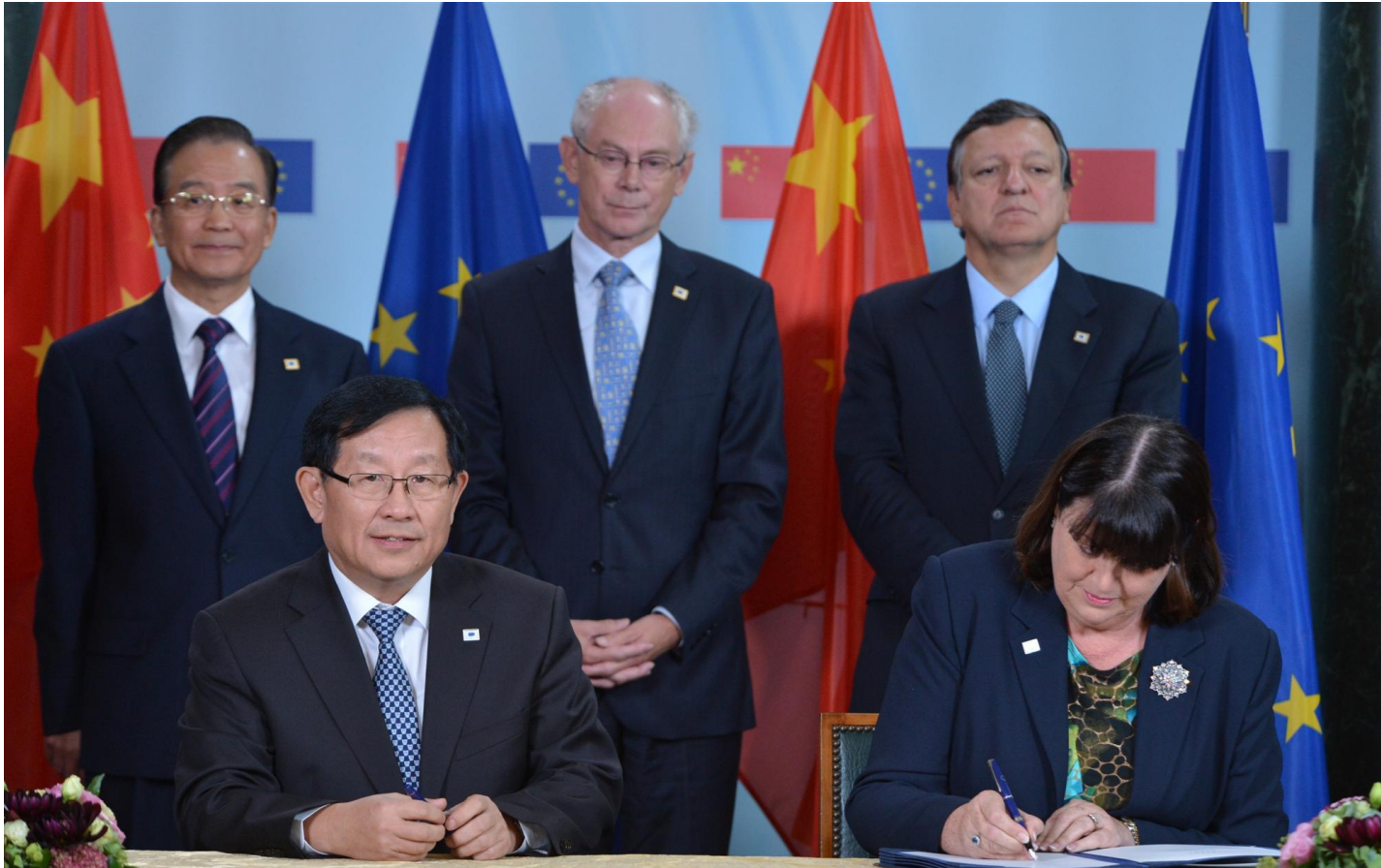


Preparing for EU-China Innovation Dialogue 筹备中欧创新对话

**On July 6 2012, National Science, Technology and Innovation Conference was held in Beijing.
2012年7月在北京举办了国家科技创新大会**



● Launching EU-China Innovation Dialogue 启动中欧创新对话



**On September 20 2012, the *Joint Declaration on China-EU Innovation Cooperation Dialogue* was signed.
2012年9月20日签署了中欧创新合作对话联合声明**

PDSF support to EU-China Innovation Dialogue **中欧政策对话支持项目对中欧创新对话的支持**

- **Partners** 合作伙伴
- DG Research & Innovation and the Ministry of Science and Technology (MoST) 欧盟科研和创新总司和中国科技部
- 1st high level meeting of the EU-China Innovation Cooperation Dialogue took place in Beijing on 21 November 2013. Two sides reconfirmed the importance on innovation as a means of tackling social challenges and promoting sustainable growth.
- 2013年11月21日在北京召开了中欧创新合作第一次高级别会议，双方确认了创新作为应对社会挑战和促进可持续增长工具的重要性
- High level meeting identified 4 priority areas for EU China research and innovation collaboration:
- 高级别会议决定将以下4个领域作为中欧研究的优先方向：
 - 1) Food, agriculture and biotechnologies 粮食、农业和生物科技
 - 2) Sustainable urbanisation 可持续城镇化
 - 3) Aviation 航空
 - 4) ICT. 信息通信技术

Next steps 下一步工作

2nd Innovation Experts Task Force Meeting in Brussels to review draft results of study and prepare next Innovation Cooperation Dialogue. The task force consists of 5 members on each side.

在布鲁塞尔召开**第2次创新专家工作组会议**，审核研究初步成果，筹备下一次创新合作对话。工作组由每方**5位专家**组成

Study lead experts participate in the next **Innovation Cooperation Dialogue meeting** to be held in Europe in 2015 and report on the results.

参加研究的主要专家将参加**2015年在欧洲召开的下一届创新合作对话会**，汇报研究成果

Results foreseen : 预期产出:

- Policy recommendations on framework conditions for innovation in the 4 priority sectors including concept for large-scale demonstration projects on innovation.
- 4个优先领域中创新框架条件的政策建议，包括开展大型创新示范项目的想法
- Action plan (roadmap) towards next Innovation Cooperation Dialogue Meeting.
- 制定下一次创新合作对话会议的行动计划（路线图）



PDSF support to EU-China Researcher Mobility (1) 中欧政策对话支持项目对中欧研究人员流动的支持(1)

Background 背景

EU is implementing Marie Skłodowska-Curie programme, Erasmus+ and the grants provided by the European Research Council are open to scientists around the world.

欧盟正在实施Marie Skłodowska-Curie项目和Erasmus+项目，由欧洲研究委员会向全世界的科学家提供资助

An increasing number of Chinese and European students and scholars, funded by China and the European Union and its Member States, are studying abroad, conducting collaborative researches and visits. However, it appears that the bilateral flow is asymmetric: the number of Chinese researchers who go to Europe is much higher than of the European researchers who go to China. This phenomenon is linked to a variety of factors that deserve careful examination.

越来越多的中国和欧洲学生由中国、欧盟及其成员国资助赴海外留学，进行合作研究和访问。然而双边的流动似乎并不对等，中国研究人员的赴欧人数大大超过欧洲研究人员赴中国的人数。出现这一现象的原因很多，应该进行深入研究。

The international mobility of researchers is crucial for an enhanced innovation system, bilateral scientific and technological cooperation, career development of researchers, and the improvement of research environment.

研究人员的国际性流动对于强化创新系统、双边科技合作、研究人员的职业发展和改善研究环境都十分重要。

● EU-China Researcher Mobility (2)

中欧政策对话支持项目对中欧研究人员流动的支持(2)

Aims 目标

- Mapping exercise to examine current situation of researchers' mobility between EU and China, analyse push-pull factors influencing the mobility choice and pattern, and formulate policy recommendations to improve mobility and balance the flow of researchers between both sides.
- 调查目前中欧研究人员的流动现状，分析影响流动选择推出一拉回的原因，形成改进流动性和中欧双边流动平衡的政策建议。
- Feeding into the High Level People-to-People Dialogue and the EU China Innovation Cooperation Dialogue.
- 并入中欧高级别人文对话和创新合作对话。
- Galvanise policy makers on importance of international mobility, to introduce and disseminate current EU and China funding schemes.
- 使决策者了解国际流动的重要性，以引入和推广目前中国和欧盟的资助机制。

● Is it possible for Chinese cities to get involved in Horizon 2020? 中国城市可以参与地平线2020吗

- Chinese participation is welcomed in **all** Calls for Proposals of Horizon 2020
地平线2020欢迎中国参与其**所有**项目申请的邀请
- In the 2014/2015 calls several topics are specifically flagged for targeted cooperation with China. Participation of Chinese partners is strongly encouraged:
2014/2015年邀请中包括很多课题，重点为有针对性的与中国的合作，特别鼓励中国合作伙伴参与以下领域的合作：
 - » Food, 食品
 - » Agriculture and Biotechnology, 农业和生物技术
 - » Water, 水
 - » **Energy, 能源**
 - » **Information and Communications Technologies, 信息和通讯技术**
 - » Nanotechnology, 纳米技术
 - » Space 空间
 - » Polar research 极地研究
- Same conditions and financial rules as other emerging economies and industrialised countries. Chinese participants need to cover their participation costs in Horizon 2020 projects with their own funds, e.g. through Chinese research and innovation funding agencies.
中国与其它新兴经济体和工业化国家享有同等条件和财务规则，需要自行承担参与地平线2020项目的费用，例如：通过中国研究和创新基金筹资。

EU-China Comparative Study on Smart Cities 中-欧智慧城市比较研究

- The objective of the assessment framework was to **compare** the various characteristics of each Smart City project in order to
评估框架的目的为比较每个智慧城市的不同特点，以便：
 - » Identify “good practise” in the various components of a Smart City project
确定智慧城市项目不同组成部分中的“先进经验”
 - Assessed against a common set of criteria
评价
 - » Understand emerging challenges in Smart City projects
理解智慧城市项目面临的新兴挑战
 - » Develop a “Good Practice Framework for Smart City Planning and Development”
开发“智慧城市规划和开发先进经验框架”

中华人民共和国工业和信息化部

Ministry of Industry and Information Technology of the People's Republic of China



欧盟委员会通信网络内容与技术总司
DG Connect of EU Commission



Barcelona, Spain 巴塞罗那，西班牙

Service 1 服务 1	Intelligent traffic data management, with the creation of a Situation Room to control the city from one single center. 智能 交通数据 管理，创建情景屋，从一个单一中心来控制城市
Service 2 服务 2	<p>Open Government project, based on the promotion of citizen participation, cooperation and transparency, especially making public data and infrastructures available.(2012) (Open Data, OVAC, e-administration)</p> <p>公开政府项目，基于鼓励公民参与、合作和透明，特别是提供数据和基础设施理念(2012) (开放数据，OVAC和电子政务管理)</p>
Service 3 服务 3	<p>Development of energy efficiency in buildings based on the incorporation of solar panels, mixed uses, joint heating and water recycling under the framework of Energetic self-sufficiency plan (self-sufficient building blocks, smart grid, heating and cooling network)</p> <p>基于能量自给计划框架下的综合太阳能板、混合利用、联合供暖和水循环开发的建筑物能源效率开发（建筑用砖自给、智慧电网、供暖和制冷网络）</p>
Service 4 服务 4	<p>Smart Innovation includes the following projects: Innovation District 22@, Smart City Campus, Smart City Tour, Smart City Cluster, Urban Lab, and Competence center mSmart City. Urban Lab, 2008, is a tool created to allow the use of public space for companies to test solutions and services in a real urban environment.</p> <p>智慧创新包括以下项目：Innovation District 22@，智慧城市校园、智慧城市旅游、智慧城市群、城市实验室和能力中心，mSmart 城市。城市实验室2008是创建企业使用公共空间，在真空的城市环境下进行实验解决方案和服务的工具</p>
Service 5 服务 5	<p>Development of an Urban Platform for city management to unify data from various sources (this project will be ready in 2014) which includes the projects: CityOS, Barcelona Sensors Platform, i-City.</p> <p>开发城市管理平台，整合来自不同资源的数据（本项目将在2014年就绪），项目包括：CityOS, Barcelona Sensors Platform, i-City.</p>



Bristol, UK 巴里斯托尔，英国

Service 1 服务 1	<p>Digital Environment Home Energy Management System (DEHEMS): The project looked at how technology can improve domestic energy efficiency. Intention was to develop and test a home energy management system with the aim of improving the current monitoring approach to levels of energy being used by households in order to reduce CO₂ emissions.</p> <p>数字环境家庭能源管理系统，本项目旨在研究技术如何能够改进家庭能源效率，开发和实验一套家庭能源管理系统，从而改善家庭目前使用能源的监控方式，CO₂的排放。</p>
Service 2 服务 2	<p>3e-Houses: The project consists of integrating the most common ICTs into social housing in order to allow homes to save energy, shift their consumption from peak to off-peak hours and reduce CO₂ emissions.</p> <p>3e-Houses: 本项目包括整合最普通的ICTs进入社会住房，通过错峰消费，以节约能源，降低CO₂排放。</p>
Service 3 服务 3	<p>ICT services for Electric Vehicle Enhancing the User experience (ICT 4 EVEU): The project aims to deploy an innovative set of ICT services for electric vehicles in pilots across Europe. Integration of different Management Systems operating on the existing EV infrastructures in the cities, related services can be deployed and make use of these interconnected infrastructures (charging points, control centres and vehicles).</p> <p>为电动车提供ICT服务，强化用户体验：本项目旨在利用一套创新型ICT服务装置为在欧洲试点地区的电动车提供服务，整合城市中应用于现有EV基础设施的不同的管理系统，可以应用相关的服务，利用这些相互关联的基础设施（充电点、控制中心和机动车）</p>
Service 4 服务 4	<p>Urban Traffic Control Centre (UTCC): The Centre now uses more than 200 cameras to monitor vehicular movements throughout the city, linked to the remote communications and equipment room via the council's own fibre network (B-Net), the images are displayed for operators on a large rear-projection video wall.</p> <p>城市交通控制中心：目前本中心安装有200多个摄像头，监控城市内机动车的运行状态，并通过市政厅的光纤网与远距离交流和设备室相连。图像显示在大型背投电视墙上。</p>
Service 5 服务 5	<p>B-Open Data Store: Open Data Portal to promote transparency and increase public and neighbourhood engagement, encouraging citizens to work with information and data to create applications, websites, mobile products or installations.</p> <p>B-Open数据商店：开放数据门户网站促进公开透明和增强公众和邻里间的互通，鼓励公民利用信息和数据来创建应用程序、网站和手机产品或装置</p>



Florence, Italy 佛罗伦萨，意大利

Service 1 服务 1	<p>Smart Lighting: use of advanced technologies related to lighting (lighting with LED sources) for energy savings and reduced environmental impact</p> <p>智慧照明: 利用与照明查卷的先进技术（LED光源），节约能源和减少对环境的影响</p>
Service 2 服务 2	<p>ELECTRA: promoting a new urban sustainable mobility model. Increase the electric scooters use in urban areas, through short sharing (e.g. for one day) or rent (e.g. for six months)</p> <p>ELECTRA: 促进使用新型可持续移动模式，增加在城镇区域内使用电动滑板车，可以短期共用（如一天）或租用（如6个月）</p>
Service 3 服务 3	<p>Open Data: Florence has launched a section of its website dedicated to recently released mobile apps.</p> <p>开放数据: 佛罗伦萨已经在其网站上开出一个区域用于近期公布的手机应用程序</p> <p>-Florence Heritage: information about elements of the city that contribute to its UNESCO Heritage status, including historic shops and Palazzi, itineraries and in depth information.</p> <p>-佛罗伦萨遗产: 提供有关联合国教科文组织世界遗产地位的城市元素的相关信息，包括历史悠久的商店和建筑，合理的行程安排和深入的信息。</p> <p>-FirenzeUp: connects to the city's events database 与城市活动数据库相连</p> <p>-Firenze the Walking City: suggests historic and panoramic walking itineraries, including a guide to open Wi-Fi hotspots</p> <p>-佛城漫步: 建议的历史和全景步行路线，包括行程指南和开放的无线网热点</p>
Service 4 服务 4	<p>GEO is a service of geo-referencing information resources in the field of mobility. Provides access to a family of related services to the mobility and provides real-time traffic situation of Florence. Possible to see construction work, accidents, speed cameras, detours, etc.</p> <p>GEO是地理参考信息资源在移动领域的服务，它能够为家庭提供与移动相关的服务，如佛罗伦萨的实时交通状况， 还可以看到施工作业，事故，限速摄像头，绕行通知等等。</p>

Vienna: General Facts 维也纳：一般数据

- 1,741,246 total population of Vienna.
- 2013年维也纳的总人口为1,741,246人。
- Total area (2012): 41,487 hectares
- 总面积（2012年）：41,487公顷
- Built-up area (2010): 14,680 hectares (35.4 %)
- 建筑聚集面积（2010年）：14,680公顷（35.4 %）
- Green space (2010): 18,912 hectare (45.6 %)
- 绿地（2010年）：18,912公顷（45.6 %）



Source: <http://www.wien.gv.at/english/administration/statistics/urban-area.html>

来源: <http://www.wien.gv.at/english/administration/statistics/urban-area.html>

● Economic aspects 经济方面

Attracting multinational firms: 吸引跨国公司:

Tax system, labour legislation, labour costs 税收制度、劳动法规、

Availability of qualified labour 合格劳动力的可用性

Attract managers and their families 吸引经营者及其家庭

Public transport system: 公共交通系统:

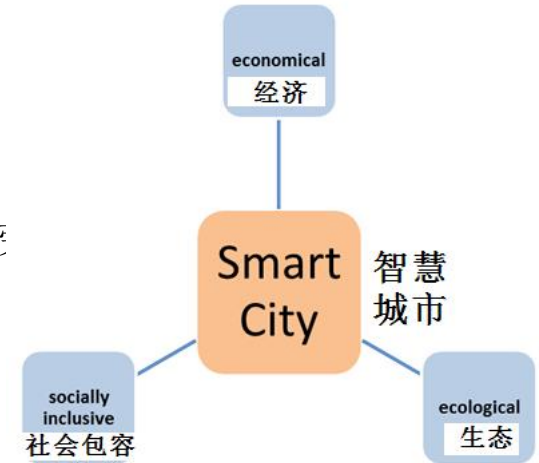
Wiener Linien: Vienna's public transport service provider 维也纳利尼恩公司: 维也纳公共交通服务供应商

→ 96% of residents have excellent access to public transport → 96%的居民可以获得优质的公共交通服务

E-Government → Online Services, Open Data Initiative 电子政务 → 在线服务, 开放数据计划

Efficient service providers 高效服务提供商

High educational standard (universities, vocational training etc.) 较高的教育标准 (大学、职业培训等)



Ecological aspects 生态方面

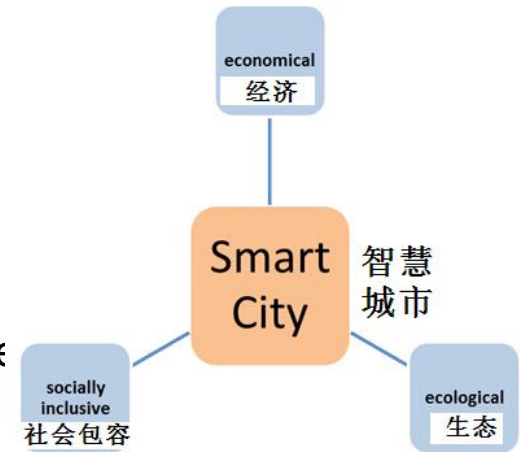
- Environmental legislation 环境法规
- Waste management 废物管理
- Renewable and alternative energies: Citizens' Solar Power

可再生和可替代能源：市民的太阳能发电厂

→ Vienna's smart vision: 50% of renewable energy by 2030

→ 维也纳智慧愿景：到2030年时可再生能源达到50%

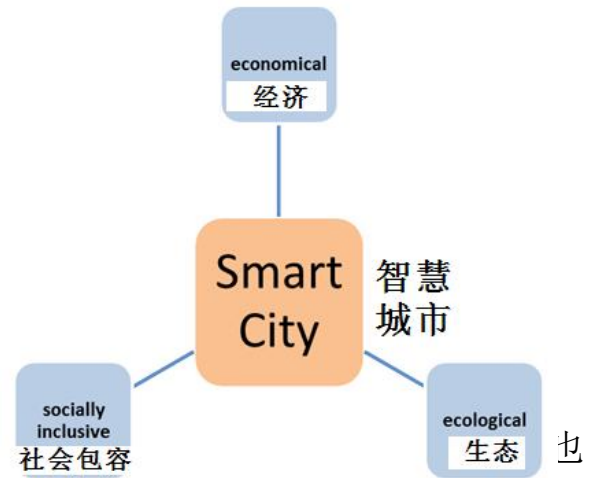
- EcoBuy Vienna: Making procurement activities in Vienna and its affiliated enterprises more ecologically sustainable 维也纳生态采购：使维也纳及其附属企业的采购活动更具生态可持续性
- Green areas: Vienna Woods, Donauinsel 绿色地区：维也纳森林、多瑙岛



Social Inclusion 社会包容

Smart City Wien understands urban life, primary as a social, and only secondary as a technical and logistic challenge
智慧城市维也纳理解的城市生活，主要是一种社会挑战，其次是技术和物流挑战

- High standard of living 高生活标准
- Infrastructure based on short distances 基于短程的基础设施
- Integration of migrants → „Start Wien“, Vienna language vouchers 纳”，维也纳语言教育券，等等。



- » Increase in population: + 9.4% within the last 10 years 增加人口：在过去10年里增加了9.4%
- » Long term perspective: 1.7 million to 2.1 million until 2050 长期远景：到2050年时170万至210万

- E-Health strategy based on ICT 基于ICT的电子医疗战略
- Governmentally supported housing projects → Wiener Wohnen 政府支持的住房项目 → 维也纳住房
- Harmonious and integrative living 和谐和综合性的生活
- Cultural city 文化城市

Housing住房

“Wiener Wohnen”: “维也纳住房”:

- Social and subsidized housing: 社会和补贴住房:
 - » Council homes 公租房
 - » Housing for low income groups (e.g. students, trainees etc.) 为低收入群体（例如学生、实习生等等）提供住房

→ > 60% of Vienna's inhabitants live in a subsidized apartment! → > 60%的维也纳居民居住在补贴住房中!
- Ecological improvements are encouraged through non-refundable building grants 鼓励通过不可退还的建筑补贴来改善生态
- ICT / e-supported independent living for elderly ICT/电子技术支持独立生活的老年人
- Harmonious and integrative living: 和谐和综合性的生活:
 - » Multigenerational Houses 多代同堂房屋
 - » Shared Housing for native residents and migrants 为本地居民和移民提供的共享住宅
 - » Energy efficient buildings 能源效率建筑

● Member State Level Support, e.g. UK 成员国层面的支持，例如英国

- **UK Future Cities Demonstrator Programme**英国未来城市展示计划
- UK Technology Strategy Board started funding feasibility studies in UK cities to show the value of integrating city systems.
英国技术战略委员会开始资助英国城市的可行性研究，以展示整合城市的价值
- The Board identified three systems that lack viable solutions on the market
董事会确定了三个系统，但缺乏市场上可行的解决方案
 - » platforms to identify community energy patterns down to the building level, with the ability to predict future demand;
建立平台来确定社区能源模式，可以直到建筑物层级，并具有预测未来需求的能力；
 - » data management platforms to connect city's many disparate data sets, including innovative ways to analyse and display that data;
数据管理平台，连接城市的许多不同的数据资源，包括数据分析和显示的创新方式；
 - » real-time route planners for commuters, delivery vans, tourists, etc.
通勤人员，运输车辆，游客等用户的实时路径规划；
- Total £24 Mio grant. Each participating city was granted 50,000 Euro to develop an innovative proposal.
总共2400万英镑拨款，每个参与城市都可获得5万欧元进行创新项目的开发
- A condition for entering the contest was that entrants use non-proprietary data formats and APIs.
参与竞赛的前提条件是使用非专有数据格式和API。
- Winner: Glasgow used the grant money to invest in "super intelligent" CCTV cameras that can be used to raise alarm when unattended bags are detected, and apps that can help visitors find the quickest routes
胜利者：格拉斯哥将补助资金用于投资“超级智能”CCTV摄像机，当机器检测到无人照管的口袋时会发出警报，应用程序可以帮助游客找到最快捷路线