

# e-flight-forum in China: Electrify China's Sky and Your Business

Hosted and organized by Flying Pages GmbH & Z-Park Sky Innovations General

Aviation Industrial Alliance

November 8-10, 2017

Beijing, China



| 中 | 关 | 村 |  
蓝创通用航空产业联盟  
Z-Park Sky Innovations General Aviation Industrial Alliance

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# Electric aircraft development in Europe



## e-flight-forum in China: Electrify China's Sky and Your Business



- ✓The first electric aviation event held in China;
- ✓eVTOL, LSA, hybrid, motor, battery;
- ✓Manufacturers, regulators, investors from China and the world;



# Electric aircraft on the way to CHINA?



## e-flight-forum in China: Electrify China's Sky and Your Business

China is an optimal country to promote electric aviation:

- ✓ Rising awareness of environmental issues in the society;
- ✓ The government's ambitious development plan for the general aviation development by 2020 and strong support for innovation;
- ✓ Electric airplanes suit China's GA operation needs very well;
- ✓ E-mobility has a good momentum in China who became the world's largest market for electric automobiles in 2015. Over half millions electric automobiles were sold in China in 2016.

## e-flight-forum in China: Electrify China's Sky and Your Business

### **Agenda update:**

- ✓ Electric propulsion & power supply;
- ✓ Infrastructure;
- ✓ Applicable aircraft configurations;
- ✓ Certification (ASTM) of electric aircraft and autonomous flight;
- ✓ Unusual configuration/VTOL;
- ✓ Electric flight training;
- ✓ Flight control & autonomous flight;
- ✓ Investment opportunities.



# Presenters from around the world



## e-flight-forum in China: Electrify China's Sky and Your Business

### **Speaker update:**

- ✓ Keynotespeaker: Dr. Frank Anton, head of e-Aviation, Siemens;
- ✓ Gregory Bowles, VP, GAMA EPIC;
- ✓ Tine Tomaciz, Technical Director, Pipistrel Aircraft;
- ✓ Mark Moore, Elevate project, Uber (to be confirmed );
- ✓ Michael Friend, senior advisor, Zunum Aero (to be confirmed );
- ✓ Omer Bar-Yohay, CEO, Eviation;
- ✓ Prof Andreas Strohmayer, Univ. Stuttgart
- ✓ Prof. Josef Kallo DLR, Univ. of ULM;
- ✓ Prof. Mirko Hornung Bauhaus Luftfahrt, Univ. of ULM;
- ✓ .... and many more



# Forum Agenda 论坛日程

**11月8日上午: /Morning, Nov. 8th:**

开幕式/Opening

主持人: 高远洋/Host: Mr. Gao Yuanyang

时间 Time	单位 Organization/Institute/Company	嘉宾 Guest	演讲内容 Content
9:00-9:05	欧盟驻华代表团 EU Delegation to China	Ignacio ASENJO, 二等秘书 (负责能源、交通与城市化) Ignacio ASENJO, Second Secretary of EU Delegation to China (responsible for Energy, Transport and Urbanization)	致辞 Address
9:05-9:10	捷克大使馆 Mission Czech Embassy Beijing	Klára Jurčová, 副大使 Klára Jurčová, Deputy Head of the Mission (Deputy Ambassador)	
9:10-9:15	中国民用航空局适航司 Aircraft Airworthiness Certification Department of CAAC	王京玲副司长 Wang Jingling, Deputy Director	
9:15-9:25	西门子电动飞机 Siemens eAircraft	Dr. Frank Anton, 西门子电动飞机执行副总裁 Executive Vice President, Siemens eAircraft	

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开幕式/Opening Part 2

主持人：高远洋/Host:Mr. Gao Yuanyang

9:25-9:30	沈阳航空航天大学 Shenyang Aerospace University	杨凤田院士 Prof. Yang Fengtian, Fellow of Chinese Academy of Engineering	致辞 Address
9:30-9:35	北京航空航天大学 Beihang University	陶智副校长 Tao Zhi, Vice Principal	
9:35-9:40	德国 Flying Pages GmbH 公司 Flying Pages GmbH	Willi Tacke, 德国 Flying Pages GmbH 公司总裁 President, Flying Pages GmbH	
9:40-9:45	中关村蓝创通用航空产业联盟 Z-Park Sky Innovations General Aviation Industrial Alliance	彭利东, 联盟副理事长 Peng Lidong (Alexander), Vice Director of the Alliance	
9:45-9:50	授牌 Awarding Ceremony	待定	

题一：电动飞机动力与电池总体技术

Subject 1: Propulsion and Power Supply

主持人：德国 Flying Pages GmbH 公司 Willi Tacke/Host: Willi Tacke from Flying Pages GmbH

时间/Time	演讲题目/Topic	演讲人/Speaker
9:50-10:20	电动航空展望及西门子电动航空发展战略规划 Prospect of Electric Aviation and Siemens' Vision and Strategy	Dr. Frank Anton, 西门子集团电动飞机执行副总裁 Executive Vice President, Siemens eAircraft
10:20-10:35	混合动力通航飞行器关键技术研究及探讨 Research and Discussion regarding Key Technologies of Hybrid GA Aircraft	张扬军，清华大学通用航空技术研究中心主任 Zhang Yangjun, Director of General Aviation Technology Research Center, Tsinghua University
10:35-10:50	燃料电池及轻型电动飞机设计 Fuel Cell Power Supply & Design of Electric Aircraft	Josef Kallo, 德国宇航中心 (DLR) HY4 项目教授 Prof. Josef Kallo, HY4 Project, Deutsches Zentrum fuer Luft- und Raumfahrt (DLR)
10:50-11:05	混动动力系统 Hybrid Propulsion Vision and Strategy of Continental	蒋彬，大陆发动机公司高级技术经理 Jiang Bin, Senior Technology Manager, Continental Motors Beijing Inc.

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题一：电动飞机动力与电池总体技术

Subject 1: Propulsion and Power Supply, part 2

主持人：德国 Flying Pages GmbH 公司 Willi Tacke/Host: Willi Tacke from Flying Pages GmbH

时间/Time	演讲题目/Topic	演讲人/Speaker
11:05-11:20	RX1E-A 电动飞机项目 RX1E-A Electric Aircraft Program	邹海宁，辽宁通用航空研究院副院长，常务副总设计师 Zou Haining, Vice President & Deputy Chief Engineer, LGAA
11:20-11:35	轻型电动飞机设计 Design of Electric/Hybrid Aircraft	李静思，安柏瑞德航空大学实验工程师 Jingsi Lilly, Laboratory Engineer, Embry Riddle University
11:35-11:55	交流讨论 Panel Discussion	该组嘉宾 Guest Speakers from Subject 1
11:55-12:50	午餐 Lunch 新兴产业联盟大厦二层中庭 Atrium, 2 <sup>nd</sup> floor of Alliance Building	



11月8日下午：

Afternoon, Nov. 8<sup>th</sup>:

议题二：电动飞机基础设施规划与建设 Subject 2: Infrastructure 主持人：德国 Flying Pages GmbH 公司 Willi/ Host: Willi Tacke from Flying Pages GmbH		
时间	演讲题目	演讲人
13:00-13:20	中欧（捷克）通航机场的规划、设计与建设比较分析：小即是美 Design Planning and Realizing GA Airfield in Europe (CZ) and China Differences and Why Small is Beautiful	Jan Fridrich, 捷克轻型飞机协会副主席 Vice President, LAA Czech Republic, LAMA Europe
13:20-13:40	汽车及航空高能量密度动力电池研究与开发 Research and Development of High Energy Density Power Battery for Automobiles and Aviation	吴丛笑, 北京国能电池科技有限公司副总经理 Wu Congxiao, Vice General Manager, Beijing National Battery Technology Co.,Ltd
13:40-14:00	挪威的电动航空发展战略规划 Vision and Strategy of Norway's Electric Aviation	Jan Otto, Reimers 挪威电动航空项目 Reimers Norway Electric Aviation Project
14:00-14:20	交流讨论 Panel Discussion	该组嘉宾 Guest Speakers from Subject 2
14:20-14:40	茶歇/TeaBreak	

议题三：非常规布局及安全系统

Subject 3: Unusual Configurations and Safety Systems

主持人：德国 Flying Pages GmbH 公司 Willi Tacke/ Host: Willi Tacke from Flying Pages

时间/Time	演讲题目/Topic	演讲人/Speaker
14:40-15:00	VerdeGo AERO eVTOL 电动垂直起降飞机项目全球首发 The World Premiere of VerdeGo AERO eVTOL Project of Erik Lindbergh, Prof. Richard Anderson and Eric Bartsch	Eric Bartsch, VerdeGo AERO 电动飞机公司首席运营官 COO, VerdeGo AERO
15:00-15:20	太阳能高空飞行器发展与技术特征初探 Research on Development and Technology Characteristics of Solar-powered Aircraft	孙康文，北京航空航天大学航空科学与工程学院副总工 Sun Kangwen, Deputy Chief Engineer, School of Aeronautic Science and Engineering, BUAA
15:20-15:40	博世公司电动航空发展战略规划 Electric Aviation System Integration	Erwin Weger, Bosch 博世公司航空部门负责人 Director of Aviation Department, Bosch
15:40-16:00	电动飞机对传统飞机设计的挑战 The Challenge that E-flight Brings to Traditional Aircraft	陈海昕，清华大学航天航空学院飞机研究与设计实验室教授 Chen Haixin, Professor, Aircraft Research and Design Laboratory of School of Aerospace Engineering, Tsinghua University
16:00-16:20	间歇/Interval	

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议题三：非常规布局及安全系统

Subject 3: Unusual Configurations and Safety Systems, Part 2

主持人：德国 Flying Pages GmbH 公司 Willi Tacke/ Host: Willi Tacke from Flying Pages

时间/Time	演讲题目/Topic	演讲人/Speaker
16:20-16:40	电动复合垂起无人机与倾转垂起无人机现状与发展趋势 Current Status and Development Tendency of Electric Composite VTOL UAV	左正立, 中国科学院遥感与数字地球研究所研究员, 遥感所无人机遥感部主任 Zuo Zhengli, Director, UAV Remote Sensing Department, the Institute of Remote Sensing & Digital Earth, Chinese Academy of Sciences (CAS)
16:40-17:00	DUC 螺旋桨在电动飞机上的独特设计 DUC Propeller Special Development for Electric Aircraft	Michael Derderian DUC 螺旋桨公司 DUC Propellor
17:00-17:20	绿色航空与我国电动飞机的未来发展 The Vision of Green Aviation and Electric Aircraft of China	黄俊, 北京航空航天大学教授、博士生导师 Huang Jun, Professor & Doctoral Supervisor, BUAA
17:20-17:40	交流讨论 Panel Discussion	该组嘉宾 Guest Speakers from Subject 3
18:30-	晚餐 Dinner 朗丽兹西山花园酒店汉朝厅 Han Dynasty Hall, Palace Garden Hotel & Resorts	

11月9日上午：

Morning, Nov. 9<sup>th</sup>

议题四：电动飞机适航审定管理 Subject 4: Certification 主持人：德国 Flying Pages GmbH 公司 Willi/Host: Willi from Flying Pages		
时间/Time	演讲题目/Topic	演讲人/Speaker
9:00-9:20	电动轻型运动飞机适航管理 Airworthiness Management of Electric LSA	张仁浩, 中国民用航空局东北地区管理局适航审定处监察员 Zhang Renhao, Supervisor, Northeastern Administration of CAAC
9:20-9:40	欧洲航空安全局解析电动航空规章 EASA' s Regulation on Electric Aircraft- with New Part 23.	Javier Vicedo, EASA 驻华首席代表 EASACHief Representative in Beijing
9:40-9:50	电动飞机适航观察 Observation Airworthiness for Electric Aircraft	张峰, 中国航空器拥有者及驾驶员协会秘书长 Zhang Feng, Secretary General, AOPA-China
9:50-10:10	电动航空发展规划及政府关系 Development Roadmap and Regulatory Relationship of Electric Aviation	Kyle Martin, GAMA 通航制造商协会电动创新委员会负责人 Director of EPIC, GAMA

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议题四：电动飞机适航审定管理

Subject 4: Certification, part 2

主持人：德国 Flying Pages GmbH 公司 Willi/Host: Willi from Flying Pages

时间/Time	演讲题目/Topic	演讲人/Speaker
10:10-10:30	ASTM 电动飞机适航标准 Electric Aircraft Certification of ASTM	Tom Pehghiny USA 轻型运动飞机适航委员会外部及政府事务副总裁 Vice President, External& Governmental Affair, ASTM
10:30-10:50	捷克电动航空及通航技术创新 Electric Aircraft Innovation in Czech Republic, EU/China GA Cooperation	Jan Fridrich, 捷克轻型飞机协会副主席 Vice President, LAA CZ, LAMA Europe
10:50-11:10	交流讨论 Panel Discussion	该组嘉宾 Guest Speakers from Subject 4
11:10-11:20	茶歇/ Tea Break	

议题五：电动飞机飞控及自主飞行系统设计

Subject 5: Flight Control and Autonomous Flight

主持人：德国 Flying Pages GmbH 公司 Willi/ Host: Willi from Flying Pages

时间/Time	演讲题目/Subject	演讲人/Speaker
11:20-11:40	分布式电推进翼身融合布局缩比验证机飞行控制 Control of an Electric Distributive Propulsion Subscale Blended Wing Body Demonstrator	张曙光, 北京航空航天大学交通科学与工程学院教授 Zhang Shuguang, Chair Professor, Department of Aircraft Airworthiness Engineering, School of Transportation Science and Engineering, BUAA
11:40-12:00	新型飞行器布局飞行/推进综合控制 Integrated Flight and Propulsion Control for Novel Aerial Vehicle Configurations	Prof. Florian Holzapfel, 慕尼黑工业大学首席教授 Chair Professor, Technical University of Munich
12:00-12:20	从传统电动飞机到高端无人机再到载人电动垂直起降飞机的发展之路 Bridging Technologies: from Conventional Electric Aircraft over High-end Drones to Manned eVTOL	田瑜, 多个电动飞机项目创始人 Tian Yu, Founder of multi electric aircraft projects
12:20-12:40	BRS 整机降落伞在电动飞机上的应用 BRS Application on Electric Aircraft	Enique Dillon, BRS 整机降落伞公司 CEO CEO, BRS Inc.
12:40-13:00	交流讨论 Panel Discussion	该组嘉宾 Guest Speakers from Subject 5
13:00-14:00	午餐/Lunch	

11月9日下午：

Afternoon, Nov. 9<sup>th</sup>:

议题六：多种类型电动飞机设计		
Subject 6: Applications of Aircraft Configurations		
主持人：德国 Flying Pages GmbH 公司 Willi/ Host: Willi from Flying Pages		
时间/Time	演讲题目/Topic	演讲人/Speaker
14:00-14:20	混动及电动支线客机设计 Hybrid and Electric Regional Electric Airline Design	Michael Friend, Zunum 电动飞机公司首席顾问 Chair Consultant, Zunum Aero
14:20-14:40	EC04 轻型电动飞机设计 Design of EC04 Electric Aircraft	Prof. Andreas Strohmayer, 斯图加特大学 EC04 电动飞机项目教授 EC04 Project, University of Stuttgart
14:40-15:00	轻型电动飞机设计 Design of Electric Aircraft	Prof. Mirko Hornung, 德国包豪斯航空研究所教授 Bauhaus Luftfahrt
15:00-15:20	电动通航轻型飞机的发展 Development of Electric GA Aircraft	Matthias Betsch, Flight Design 飞机公司创始人 Founder of Flight Design

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议题六：多种类型电动飞机设计

Subject 6: Applications of Aircraft Configurations

主持人：德国 Flying Pages GmbH 公司 Willi/ Host: Willi from Flying Pages

时间/Time	演讲题目/Topic	演讲人/Speaker
15:20-15:40	<p>从最富经验的电动飞行器设计公司看未来 19 座电动支线客机及都市垂直起降飞行器</p> <p>Future 19 Seat Electric Regional Microfeeders and Urban eVTOL Aircraft from the Most Experienced Electric Aircraft Design House</p>	<p>Dr. Tine Tomazič</p> <p>蝙蝠飞机公司垂直起降解决方案总监</p> <p>Director of Pipistrel of Vertical Solutions</p>
15:40-16:00	<p>充满乐趣的电动超轻机研究</p> <p>Electric Microlight Aircraft for Fun and For Research</p>	<p>Karl Käser,</p> <p>飞机设计公司 CEO</p> <p>CEO, Kasaero</p>
16:00-16:20	<p>RX1E 电动飞机及电池系统适航取证实践</p> <p>The Practice of RX1E Electric Aircraft and Battery System Certification</p>	<p>韩成业，辽宁通用航空研究院副总设计师</p> <p>Han Chengye,</p> <p>ViceChief Engineer, LGAA</p>
16:20-16:40	<p>交流讨论与茶歇</p> <p>Panel Discussion &amp; Tea Break</p>	<p>该组嘉宾</p> <p>Guest Speakers from Subject 6</p>



议题七：电动飞机飞行培训应用模式

Subject 7: E-Flight-Training

主持人：德国 Flying Pages GmbH 公司 Willi/Host: Willi from Flying Pages

时间/Time	演讲题目/Topic	演讲人
16:40-17:00	轻型电动飞机的飞行培训应用 Flight Training of Electric Airplane with Pipistrel in US Switzerland and Soon China	吴昊, 飞虎雄鹰通航公司 CEO Danny Wu, CEO, Flying Tiger General Aviation Co., Ltd.
17:00-17:20	我国航空产业发展及电动航空发展 The Development of Aviation Industry and E-Aviation in China	金伟, 工信部赛迪智库航空产业研究室副主任 Jin Wei, Deputy Director, CCID Aviation Research Department
17:20-17:40	轻型电动飞机的飞行培训应用及适航审定 Flight Training and Certification of Electric Airplane	Gilles Rosenberger, 法国航协电动航空培训副总 Vice President, Electric Aircraft Training, French AERoclub
17:40-18:00	电力推进系统的改良 Amelioration of Electric Propulsion System	Olaf Otto, 西门子电动飞机销售及业务开发主管 Head of Sales & Business Development eAircraft Siemens AG

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议题七：电动飞机飞行培训应用模式

Subject 7: E-Flight-Training, part 2

主持人：德国 Flying Pages GmbH 公司 Willi/Host: Willi from Flying Pages

时间/Time	演讲题目/Topic	演讲人
18:00-18:20	电动直升机模拟机：即刻可用的电动飞机 Electric Helicopter Trainer: Electric You Can use Right Now	Mike Creed, 德奥通航 CEO Mike Creed, CEO, DEA / Ciragre (China-Argentina)
18:20-18:40	交流讨论 Panel Discussion	该组嘉宾 Guest Speakers from Subject 7
	会后总结/ Closing Remark: Willi Tacke and Alex Peng	

11月10日上午

Morning, Nov. 10<sup>th</sup>:

议题八：电动航空投资机遇与挑战及项目路演		
Subject 8: Investment Opportunity and Risk + Projects Roadshows,		
主持人：德国 Flying Pages GmbH 公司 Willi/Host: Willi from Flying Pages		
时间/Time	演讲题目/Topic	演讲人/Speaker
9:00-9:20	龙浩航空产业对电动航空发展的期待 Expectation of Electric Aircraft Development from Longhao Aviation	李强，龙浩集团董事副总裁 Li Qiang, Vice President & Director, Guangdong Longhao Aviation GroupCo.,Ltd
9:20-9:40	如何把握现有通航飞行器向电动飞行器转变过程中的投资机遇 How to Seize the Investment Opportunity During the Transforming from GA Aircraft to Electric Aircraft	刘世江，北京华洋恒通投资有限公司总裁 Liu Shijiang, President, Beijing Huayang Hengtong InvestmentCo.,Ltd
9:40-10:00	新时代电动航空的综合金融机会 Comprehensive Financial Opportunity under New Era of Electric Aviation	张中朝，平安银行股份有限公司装备制造业金融事业部总裁 Zhang Zhongchao, President, Equipment Manufacturing Industry Financial Group, PingAn Bank Limited Liability Company
10:00-10:10	茶歇/Tea Break	

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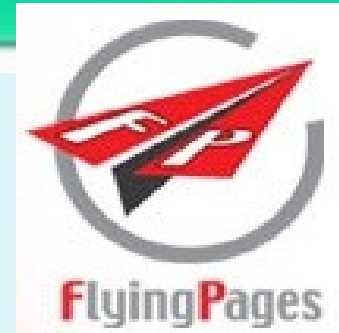
议题八：电动航空投资机遇与挑战及项目路演

Subject 8: Investment Opportunity and Risk+Projects Roadshows

	项目路演/Roadshows	演讲人/Speakers
10:10- 12:10	BRS 航空技术公司 BRS Aero Technology	Enique Dillon, BRS 整机降落伞公司 CEO CEO, BRS Inc.
	ECO4 四座混合动力电动飞机项目 ECO4 Project	Prof. Andreas Strohmayer, 斯图加特大学 ECO4 电动飞机项目教授 ECO4 Project, University of Stuttgart
	Carplane 飞行汽车项目 Carplane Project	John Brown, Carplane 公司 CEO CEO, CarplaneGmbH
	Flight Design 飞机公司电动飞机项目 Electric Aircraft Project, Flight Design	Matthias Betsch, Flight Design 飞机公司创始人 Founder, Flight Design
	VerdeGo Aero 电动垂直起降飞机项目 eVOT Plane Project, VerdeGo Aero	Eric Bartsch, VerdeGo Aero 电动飞机公司首席运营官 COO, VerdeGo Aero
	M-E-E 电动超轻机项目 Electric Ultra Light Aircraft Project, M-E-E	Karl Käser , Kasaero 飞机设计公司 CEO CEO, Kasaero Aircraft Design
	“地平线” 混动水陆两栖飞机项目 “Horizon” Hybrid Amphibious Aircraft	张弩, 丝翼航空总裁 Zhang Nu, President, Silk Wings Aviation
	ClosingRemark	会后总结



# e-flight-forum in China: Electrify China's Sky and Your Business



## Introduction of the Chinese co-host:

**Flying Pages GmbH / Flying China**  
the e-flight-forum organizer

Since 2009 Flying Pages GmbH has been the founder and the co-organizer of the annual e-flight-expo, the world's largest electric aviation fair with its renowned e-flight-expo-forum. Flying pages organized the worlds first e-flight show in 2017.

Flying Pages has not only been publishing in Europe and US since the 1980<sup>th</sup> but also in Chinese language and promoting GA in China since 2010. Currently Flying Pages publishes two GA publications in Chinese language: "World Directory of Light Aviation", and "Flying China" which is the only periodical dedicated to GA and private flight in the Chinese market as of today. Flying Pages is highly capable of bridging the global electric aviation industry with the Chinese investor and the Chinese market. Recently published the E-flight-Journal the first magazine dedicated exclusively to electric aviation.  
[www.e-flight-journal.com](http://www.e-flight-journal.com)

# e-flight-forum in China: Electrify China's Sky and Your Business



| 中 | 美 | 村 |  
蓝创通用航空产业联盟  
Z-Park Sky Innovations General Aviation Industrial Alliance

## **Introduction of the Chinese co-host:**

Founded in April 2016, Z-Park Sky Innovations General Aviation Industrial Alliance is a nonprofit organization with more than 60 members of the Chinese GA industry including manufacturers, operators, research institutes and investors, and has strong support from various government ministries. Headquartered in Zhongguancun Science Park (known as “Z-Park”), an area in northern Beijing known as “China’s Silicon Valley”, the Alliance is committed to spearhead the technological innovations of general aviation in China.

# e-flight-forum in China: Electrify China's Sky and Your Business

The event to bring your products and ideas to China

**When:** 8-10 November 2017

**Where:** Z-Park New Industrial Alliance Building, Beijing, China

**How to register:**

Europe & USA: Willi Tacke, [willi@flying-pages.com](mailto:willi@flying-pages.com)

China & Aisa: Xin Gou, [xin@flying-pages.com](mailto:xin@flying-pages.com)

Adresse of the Venu

Z-Park Emerging Industry Alliances, Building 10,  
Yard 10, Xibeiwang East Rd, Haidian District, Beijing, China, 100193

Chinese –

北京市海淀区中关村软件园二期西北旺东路10号院10号楼中关村新兴产业联盟大厦

Adresse Hotel

the hotel: Palace Garden Hotel and Resorts (in

Chinese: 朗丽兹西山花园酒店)13 Fengzhi Dong Lu, Haidian District, Beijing,  
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