



## Metropolitan Solutions: Innovations for urban infrastructures

# Metropolitan Solutions Guide

Exhibition · Beacon projects · Forum program

Hall 26



**NEW TECHNOLOGY FIRST**

23 – 27 April 2012 · Hannover · Germany

Metropolitan  
Solutions





Our urban future holds enormous challenges, not least energy scarcity, water shortages, environmental pollution, demographic change and logistical bottlenecks. In fact, the infrastructure in many of our cities is already struggling to cope with demand.

Cities are where political, economic,

ecological, social and cultural forces converge to shape the future. The People's Republic of China, the official Partner Country for HANNOVER MESSE 2012, is home to many of these large urban centers. And it is the cities of China, perhaps more than any others, which will experience rapid population and geographic growth over the coming years. The causes of climate change are to be found for the most part in our cities. By developing energy-efficient and climate-friendly solutions, the large urban centers of the world can lead the way to a CO<sub>2</sub>-neutral future.

Urbanization also gives rise to many other opportunities. The key is to plan, shape and re-shape urban structures in such a way as to achieve a sustained improvement in our quality of life and work. In other words, in order to be a good place to live and work, and hence in order to remain competitive and maintain its skillbase, a city needs to be intelligent – it needs to be a smart city.

Global urbanization and the associated interweaving of previously separate spheres of life and urban functions deliver more than just greater amenity; they also make us more vulnerable. We have become dependent on the infrastructure that provides our mobility, energy, communication and essential public services.

As the EU Commissioner for Regional Policy, I am delighted to serve as the official patron for Metropolitan Solutions 2012. I would like to wish all participants a thought-provoking and stimulating time in Hannover.

Dr. Johannes Hahn  
Commissioner for Regional Policy, European Commission, Brussels



The ratio of city dwellers to total population will increase dramatically in the coming decades. Five billion people will live in urban areas by 2030 according to UN estimates. By comparison, this number today is 3.5 billion. In Asia in particular, this development is creating major societal challenges: The United

Nations predicts that more than half the world's urban population will live in Asia twenty years from now. China alone will need 500 new cities to develop to accommodate this demographic change and support the trend towards urbanization.

Metropolitan Solutions is the largest international platform presenting cross-industry technological solutions for urban infrastructures. Exhibitors showcase intelligent solution ideas for the urban challenges of the present and the future. These are technologies that deal with energy, water and wastewater as well as mobility and building infrastructures in cities. For the first time this year we are addressing the themes of safety, security and waste management, with urban mining as one forward-looking topic. The reuse of raw materials after the end of their product lifecycle forms the focus here.

I am particularly looking forward to the Metropolitan Solutions forum this year. International experts discuss the city of the future on all five days of the show, and Partner Country China is playing a key role on the Wednesday. One particular question being explored is whether a productive discourse is possible between the large, older cities in the traditional industrialized countries, and the exploding cities in the emerging and developing countries.

Visit Hall 26 to experience solutions for the cities of today and tomorrow.

Sincerely,

Dr. Wolfram v. Fritsch  
Chairman of the Board, Deutsche Messe

## Innovations for urban infrastructure

Germany's World Population Foundation (DSW) estimates that the global population is growing by an average of 2.63 people per second. More than half of this steadily growing number already live in cities. Innovative solutions to secure vital resources such as drinking water, energy and raw materials are in demand worldwide. For the steadily increasing traffic flows, intelligent solutions are required. It is precisely these topics that Metropolitan Solutions addresses at HANNOVER MESSE 2012.

Automation, energy and IT technology already offer a number of solutions to meet the needs of large cities and urban centers.

The Metropolitan Solutions **exhibition area** in Hall 26 features a wide array of captivating applications and case studies of cross-sectoral, interdisciplinary solutions for urban infrastructure.

### **Best-practice case studies and pioneering solutions**

Visit the Metropolitan Solutions in Hall 26 to learn about beacon projects that show the way forward in visionary urban

development and the successful implementation of pioneering solutions. Take a close-up look at a wide range of best-practice case studies featuring the latest technologies and discuss the individual projects with the relevant experts.

### **High-caliber forum program consolidates expert know-how**

Located right in the heart of Hall 26, the Metropolitan Solutions Forum features an all-day program of keynote talks, technical presentations and panel discussions. The Forum's lineup of high-caliber speakers offers information and advice in a wide range of areas, including technology, project planning and financing – basically everything you need to know about the challenges confronting today's urban infrastructure and the latest solutions available to meet them.

### **Concentrated networking and knowledge sharing**

Metropolitan Solutions is where industry professionals go to build their networks and to share knowledge and information with their local and international counterparts. It is a unique opportunity to forge valuable new contacts with international partners and cultivate existing relationships.

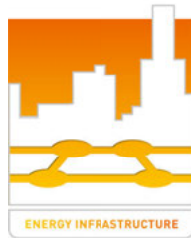


# Keynote themes

Metropolitan Solutions presents innovative solutions for the cities of the future. Major display categories include energy, water/wastewater, mobility, building infrastructure, security and waste management.

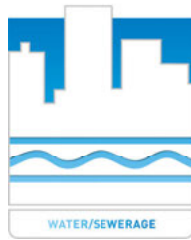
## Energy Infrastructure

- Intelligent urban grids
- Decentralized energy concepts
- Energy storage and distribution in cities
- Energy generation from solid waste and wastewater



## Water/Wastewater

- Drinking water production methods
- Supply of drinking water and process water
- Water infrastructure risk management
- Process water treatment systems



## Mobility and Logistics

- Charging infrastructure for eMobility applications
- Intermodal mobility concepts
- Decentralized goods distribution infrastructure
- Traffic management



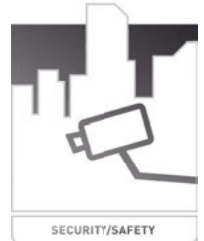
## Building Infrastructure

- Energy-efficient building technologies/concepts
- Green building technologies
- Modern buildings as “energy producers”
- Networking and integration of previously separate building systems



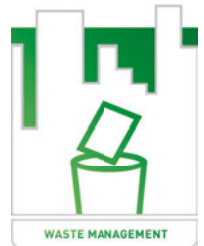
## Security/Safety

- Security and safety solutions for public utilities, mobility/transport, building management, etc.
- Components and systems for monitoring and surveillance installations
- Electronic security and safety systems



## Waste Management

- Municipal waste disposal
- Street cleaning
- Municipal cleaning services



## Preliminary list of exhibitors in hall 26

The following is a selection of companies from the preliminary list of exhibitors at Metropolitan Solutions as well as companies of IndustrialGreenTec in hall 26, which are also presenting innovative technologies for urban infrastructure.

<b>A</b>	<b>Stand</b>
AQUA-STOP Hochwasserschutz	A48
Aretana Solar	B51
art – REINHARDT Beratung E-Mobility und nachhaltige Energien	A46/1

<b>B</b>	
BMW	C48
Bundesverband für Wirtschaftsförderung und Außenwirtschaft	A46/1

<b>C</b>	
Center for Near Field Communication Management	B20/1
Clean Energy Planet	C32

<b>D</b>	
DB International	B04
DB Mobility Logistics	B04
DB Rent	B04
DB Services	B04
DB Systel	B04
DBT (La Douaisienne de Basse Tension)	C32
Deutsche Energie-Agentur (dena)	B03

<b>E</b>	
Eight GmbH	C50
EnergieCity Leipzig	B20
ENOVAPARK	C32

<b>F</b>	
Famis	B43
Festo	B23
Fraunhofer-Allianz BAU	C08
Fraunhofer-Gesellschaft	C08
Fraunhofer-inHaus-Zentrum	C08
Fraunhofer-Institut für Arbeitswirtschaft und Organisation IAO	C08
Fraunhofer-Institut für Bauphysik IBP (Stuttgart)	C08
Fraunhofer-Institut für Bauphysik IBP (Valley)	C08
Fraunhofer-Institut für Chemische Technologie ICT	C08
Fraunhofer-Institut für Fabrikbetrieb und -automatisierung IFF	C08
Fraunhofer-Institut für Grenzflächen- und Bioverfahrenstechnik IGB	C08
Fraunhofer-Institut für Kurzzeitdynamik Ernst-Mach-Institut EMI	C08
Fraunhofer-Institut für Solare Energiesysteme ISE	C08

<b>G</b>	
GBR 65	A46/1
GCI Group	A47
GoMo clean e-motion	B51/1
Grünbeck Wasseraufbereitung	B27

<b>I</b>	
IBA – Internationale Bauausstellung Hamburg	B50
IBM	A46
ID-Bike	B48
Imtech Deutschland	C20
Initiativkreis Europäische Metropolregionen in Deutschland	B37

<b>K</b>	
Kapsch TrafficCom AG	C42
KoNaMo – Kompetenznetzwerk Nachhaltige Mobilität	A46/1
Krohne Messtechnik	C24

<b>L</b>	
Larix Lärmschutz	C04
Lichtblick AG	A19
Lusail Real Estate Development Company	B31

<b>M</b>	
Moscow City Government	B28

<b>P</b>	
PASS Public Affairs Stephan Schwartzkopff	A46/1
Phoenix Contact	B27
publish-industry Verlag	A42

<b>Q</b>	
Qingdao Sino-German Ecopark	B42

<b>R</b>	
Rittal	C28

<b>S</b>	
Schenker Deutschland	B04
Schneider Electric GmbH	B08
Schneider Electric SA	B08
Secty Electronics	B46/1
SEW-Eurodrive	C36
Siemens	C12
Stadt Leipzig Amt für Wirtschaftsförderung	B20
SoCoS	B20/1

<b>T</b>	
Technische Universität Berlin, Projektbüro „Future Megacities“	B46
TUOMI S.A.	B20/1
TuTech Innovation/KLIMZUG	A48
TÜV NORD Systems	C11
TÜV SÜD	B41

<b>U</b>	
UBIFRANCE	C32

<b>V</b>	
Verband Deutscher Maschinen- und Anlagenbau	A45
VoltTerra	B49

## Further exhibitors

	Hall	Stand
<b>A</b>		
ABB	011	A35
ALBA Group	026	D20
Arndt Schäfer Chemie und Umwelt	026	D31
AUTARCON	026	E08
Axxerion Facility Services	007	C06
<b>B</b>		
BAE Batterien	026	D08/1
Basoglu Kablo ve Profil	013	B74
BELECTRIC Trading	027	L59
Bosch KWK Systeme	026	D50
Brd Klee	026	C07/1
<b>C</b>		
CHINA ECONOMIC NEWS SERVICE	003	A63
Clean Tech Media	026	C27/1
Cleanthinking.de	026	D20
Cluster Umwelttechnologien.NRW	026	D31
CONTA-CLIP	011	B07
ContiTech	005	A16
Côte D'Opale Développement	026	C32
<b>D</b>		
DAS Environmental Expert	026	C03
DAT Dynamic Aquabion Tower	026	D31
DESOTEC Activated Carbon	026	D04/1
Dream Chip Technologies	016	H03
<b>E</b>		
Effizienz-Agentur NRW	026	D31
efw-Suhl	026	D24
Electrolux	026	C07
EMS PLUS	027	E50
enexoma	026	E04
Esri Deutschland	016	H03
<b>F</b>		
Fraunhofer-Gesellschaft	002	D22
Fraunhofer-Gesellschaft	026	C08
Fraunhofer-Institut IGB	002	D22
<b>G</b>		
GP JOULE	027	K60
Greenvironment	026	D07/1
GSAB Elektrotechnik	027	M26
<b>H</b>		
Hannover Milano Fairs Shanghai	026	D42
HM Heizkörper	026	D32
HyCologne Wasserstoff	027	E60

<b>I</b>		
Idropan Dell'Orto Depuratori	026	E12
IFAK Institut für Automation	008	E35
Ingenieurbüro Bismark	004	G05
Initiative Zukunftsmobilität	025	K21
ISI Umwelttechnik	026	D31
<b>J</b>		
Jaske & Wolf Verfahrenstechnik	027	E50
<b>L</b>		
Landis & Gyr	013	C45
Liaoning Hi-Tech Energy	013	F88
LTG	004	D10
LTi DRIVES	009	A54
LTi DRIVES	014	H16
<b>M</b>		
Mauell, Helmut	013	C39
Mauell, Helmut	013	C45
<b>N</b>		
Nds. Umweltministerium	027	E50
Nestro Lufttechnik	026	D41
NEW ELFIN	011	E20
NEXCOM	009	A67
<b>O</b>		
ODB-Tec	002	A26
<b>Q</b>		
QGroup	058	D19
<b>R</b>		
RAG Montan Immobilien	026	E42/1
Ruymar Derivados del Caucho	005	A36
<b>S</b>		
SecuMedia Verlag	008	D19
Sedlbauer	011	E40
SEW Systemtechnik für Energierecycling	026	D31
Shanghai RICH Gas Equipment	026	E46/1
Sponge-Jet	026	D58
SRU Solar	027	K58
<b>T</b>		
TÜV Rheinland	026	D20
<b>U</b>		
UBIFRANCE	026	C32
UL International Germany	016	G18
Uni des Saarlandes, WuT	002	C44
<b>V</b>		
Vattenfall Europe Sales	026	D20
<b>W</b>		
WALCHER	012	D36
WF-Wuppertal	026	D31
<b>Z</b>		
ZVEI – Zentralverband Elektrotechnik	026	C49

## Beacon projects – take a tour of tomorrow’s cities

The beacon projects showcase at the Metropolitan Solutions exhibition area in Hall 26 is the place to go to see real-life examples of successfully implemented urban infrastructure projects featuring cutting-edge technical systems and integrated solutions. Best-practice case studies featured at this year’s show include the following.

### Building efficiency standards for China – Made in Germany

To improve the energy efficiency of buildings in China, the German Energy Agency (dena) has been promoting energy-efficient construction since 2006. These projects demonstrate how the energy efficiency of new construction can be increased, and where attention must be given in particular with regard to processes

■ **Deutsche Energie-Agentur GmbH (dena)**

### Smart Living

The networking of building services, electrical household appliances and multimedia as well as smart metering and e-mobility provide a better use of the power system and a secure energy supply.

■ **EnergieCity Leipzig**

### Automated drinking water treatment in Cairo, Egypt

Automated treatment of drinking water in several waterworks spread throughout the city of Cairo, with its 24 million inhabitants, saves water as well as energy.

■ **Festo AG & Co. KG**

### DEUS 21 – Decentralized urban water infrastructure systems

A novel water infrastructure design for water and wastewater management in a new development in Knittlingen.

■ **Fraunhofer-Institut für Bauphysik IBP**

### Efficiency house plus

Testing an innovative and futuristic combination of energy-efficient construction and living with individual electromobility.

■ **Fraunhofer-Institut für Bauphysik IBP**

### Energy-efficient city

“100% EE Wolfhagen” – a North Hesse town takes on the energy transition.

■ **Fraunhofer-Institut für Bauphysik IBP**

### BeMobility

Integration of electric vehicles in transport and energy networks.

■ **InnoZ GmbH**

### Micro Smart Grid

Integrate electric mobility infrastructure with power grid infrastructure.

■ **InnoZ GmbH**

### Green energy from black water – the HAMBURG WATER Cycle

Wastewater is one of our most underestimated urban resources. Yet, it has a lot to offer in terms of nutrient content, energetic potential, and last but not least, the provision of reclaimed water.

■ **HAMBURG WASSER**

### Generating energy from waste

A new, innovative technology for treating and recycling domestic waste.

■ **Imtech Deutschland GmbH & Co. KG**

## Building the city anew – a journey into the city of tomorrow

Hamburg is the scene of two of Europe's major urban development projects – the new HafenCity and the International Building Exhibition (IBA).

- **Internationale Bauausstellung IBA Hamburg GmbH**

## Lusail City

The development of Lusail City is one of the most innovative and technologically advanced projects in the world.

- **Lusail Real Estate Development Company**

## Efficiency in drinking water treatment with decentralized systems

Construction, testing and introduction of a decentralized water treatment station in Minas Gerais, Brazil

- **Phoenix Contact**

## Hesperia Hotels make the most of its energy

The Spanish hotel chain Hesperia chose to make its flagship hotel and HQ a reference in terms of energy savings, with the help of Schneider Electric.

- **Schneider Electric**

## Eastern Europe's largest waste water treatment plant

A new wastewater treatment plant is being built in Warsaw so that all the city's wastewater can be treated.

- **Siemens**

## Complete mobility

Efficient mobility and logistics solutions for an integrated traffic system – to move people and goods economically, quickly and safely.

- **Siemens**

## Safety and security for the modern city

Integrated solutions that provide complete safety and security for a city's critical infrastructure, transportation network, public places, buildings and its people.

- **Siemens**

## SIESTORAGE: Project ENEL, Italien

First energy storage container with Li-ion batteries

- **Siemens**

## Active House

The "Active House" is a residential house which has active interaction between the household and the smart grid service providers using EMS – logic (Energy Management System) and EEBus.

- **ABB AG**

## Underground Substations

In order to help strengthen the power grid and meet growing demand for power in a Middle Eastern capital, ABB has been entrusted with the construction of two 66/11 kV (kilovolt) underground substations. These will be fully integrated into the urban environment and thus be practically invisible to the public.

- **ABB AG**

## Sponsor ALBA Group

### ALBA Group

The ALBA Group has about 200 subsidiaries and equity holdings within Germany and twelve other European countries, the U.S. and Asia. With an annual turnover of 2.73 billion Euros and approx. 9,000 employees ALBA Group is one of the ten biggest recycling services and raw material providers worldwide. The operating activities focus on organising the recovery of packaging and products and on the sale of scrap metal. Additional activities are waste disposal services in municipal and commercial sectors, the sale of secondary resources, the development and operation of recycling and production plants as well as the design and performance of facility services.

**ALBA** Group  
the recycling company

Official patron:  
Dr. Johannes Hahn,  
Member of the European Commission

- Alfred Herrhausen Gesellschaft

**Alfred Herrhausen Gesellschaft**  
Das internationale Forum der Deutschen Bank



- BEM – Bundesverband eMobilität e.V.



- BITKOM – Bundesverband Informationswirtschaft, Telekommunikation und neue Medien e.V.



- Deutsche Energie-Agentur (dena)



- Deutscher Städtetag



- DFKI – Deutsches Forschungszentrum für Künstliche Intelligenz



- Deutscher Städte- und Gemeindebund



- EITEP



- Europäische Investitionsbank



- F.A.Z.-Institut



- FICCI – Federation of Indian Chambers of Commerce and Industry



- German Water Partnership



- ISOCARP – International Society of City and Regional Planners



- Karlsruher Institut für Technologie



- Metropolregion Hannover, Braunschweig, Göttingen, Wolfsburg GmbH



- Niedersächsischer Städte- und Gemeindebund



- Niedersächsischer Städtetag



- The WORLD BANK



- Urban Planning Society of China



- VBI – Verband Beratender Ingenieure



- VDMA – Verband Deutscher Maschinen- und Anlagenbau e.V.



- VKU – Verband kommunaler Unternehmen



- ZVEI – Zentralverband Elektrotechnik- und Elektronikindustrie e.V.



## High caliber Forum

Thanks to a **strong lineup of speakers**, the forum offers valuable information and advice e.g. on technology, project planning and financing – basically everything you need to know about the challenges confronting today's urban infrastructure and the latest solutions available to meet them. The talks and platform discussions will be held **in German and English**. Simultaneous translation will be offered for visitors from abroad.

### Forum program

#### Metropolitan Solutions – Innovations for Urban Infrastructures

**23–27 April 2012**  
**Hall 26, Stand B32**

Organizer: Deutsche Messe

Patron: Dr. Johannes Hahn,  
Member of the European Commission

Language: German and English  
(simultaneous translation)

Participation: Free of charge to HANNOVER MESSE  
ticket holders

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Project Finance International  
Tel. +49 7835 5479351  
richter@project-finance.de

## Session 1

### Political Introduction to Metropolitan Solutions “Cities of the Future and the Global Climate Issue”

**Host:** Dr. Joachim Richter, Project Finance International,  
Zell a. H. (Germany)

11.15–11.35	<b>Opening Keynote</b> <b>Sustainable Urban Development with Green Technologies – The EU Climate and Energy Package</b> Connie Hedegaard, EU Commissioner for Climate Action, Brussels (Belgium)
11.35–11.55	<b>Keynote</b> <b>Success factors for large-scale projects – Stuttgart 21 and Qatar as cases in point</b> Dr. Volker Kefer, Member of the Management Board, Infrastructure, Rail Technology and Services, CTO, Deutsche Bahn AG, Berlin (Germany)
11.55–12.15	<b>Keynote</b> <b>Smart City Moscow</b> Sergey Cherebin, Minister of the Moscow Government, Head of the Department of Foreign Economic and International Relations of the City of Moscow (Russia)
12.15–12.35	<b>Keynote</b> <b>Sustainable megacities – Reality or utopia? Tomorrow's cities must be safe and sustainable</b> Dr. Manfred Bayerlein, Chairman of the Board, TÜV Rheinland AG, Cologne (Germany)
12.35–12.55	<b>Keynote</b> <b>“Future-city vision” – Rethinking cities</b> Dr. Hans-Jörg Bullinger, President, Fraunhofer-Gesellschaft, Munich (Germany)
12.55–13.15	<b>Honored Keynote</b> <b>Urban development in India</b> Kamal Nath, Honorable Minister of Urban Development, Government of India (IN)

## Session 2

### City of the Future – Perspectives and Outlook

**Host:** Dr. Klaus Sedlbauer, Chairman, Fraunhofer Building Innovation Alliance; Fraunhofer Institute for Building Physics

13.30–13.50	<p><b>Keynote presentation</b>  <b>City of the future – Where is development heading?</b>            Dr. Klaus Sedlbauer, Chairman, Fraunhofer Building Innovation Alliance (IBP); Fraunhofer Institute for Building Physics, Valley (Germany)</p>
13.50–14.45	<p><b>Panel discussion</b>  <b>City of the future – Perspectives and outlook</b>            Wolfgang Nowak, CEO, Alfred Herrhausen Gesellschaft, Deutsche Bank Foundation, Berlin (Germany)            Dr. Susan Draeger, Associate Director, Büro Happold, Berlin (Germany)            Dr. Julia Roelofsen, Megacities Project Director, TÜV SÜD, Munich (Germany)            Peter Eilers, Member of the Executive Board, Imtech Deutschland, Hamburg (Germany)            Uli Hellweg, CEO, IBA Hamburg, Hamburg (Germany)</p>
14.45–15.10	<p><b>Special Keynote</b>  <b>Lusail City – a smart and sustainable city</b>            Magdi Youseff, CEO, Lusail Administration Complex, Lusail (Qatar)</p>

## Session 3

### Energy Supply & Energy Security

**Host:** Dr. Joachim Richter, Project Finance International, Zell a. H. (Germany)

15.20–15.50	<p><b>Keynote</b>  <b>The security of energy supply through smart energy systems</b>            Stephan Kohler, Chief Executive, German Energy Agency (dena), Berlin (Germany)</p>
15.50–16.10	<p><b>How can we make cities smarter? Helping cities on their journey to 'smart,' and working together to meet cities' unique needs</b>            Annie XU, Senior Vice President Smart Cities, Schneider Electric, Rueil-Malmaison (France)</p>
16.10–16.30	<p><b>The infrastructure of tomorrow: sustainable and intelligence</b>            Joerg Maschuw, Director International Key Account and International Industry Sector Management, Rittal, Herborn (Germany)</p>
<p><b>Host:</b> Peter Krapp, Managing Director, Security Systems Association, ZVEI, Frankfurt (Germany)</p>	
16.30–17.00	<p><b>Keynote</b>  <b>Future urban security – High-tech urban security</b>            Dr. Klaus Thoma, Institute Director, Fraunhofer-Institute for High Speed Dynamics, Ernst Mach Institute, Freiburg (Germany)</p>
17.00–18.00	<p><b>Panel discussion</b>  <b>Security of municipal infrastructures</b>            Dr. Klaus Thoma, Institute Director Fraunhofer-Institute for High Speed Dynamics, Ernst Mach Institute, Freiburg (Germany)            Joerg Maschuw, Director International Key Account and International Industry Sector Management, Rittal, Herborn (Germany)            Dr. Jörn Müller-Quade, Institute for Cryptography and Security, Karlsruhe Institute of Technology (KIT), Karlsruhe (Germany)            Christian Wurhofer, Head of Technology &amp; Innovation, Siemens, Infrastructure &amp; Cities Sector, Smart Grid Division, Nuremberg (Germany)</p>

## Session 4

### Energy Efficiency & Renewable Energy Sources

**Host:** Dr. Gerd Hauser, Fraunhofer Institute for Building Physics (IBP), Stuttgart (Germany)

9.30–9.50	<b>Guided tour</b> <b>Tour of the city of the future</b> Presentation of the flagship projects
10.00–10.20	<b>Energy- and climate-efficient structures in future megacities – research findings for urban innovators</b> Dr. Andrea Koch-Kraft, Program Manager, German Aerospace Center (DLR), Bonn (Germany)
10.20–10.40	<b>How will our cities become Green Cities?</b> Christoph Conrad, Director of Strategy and Marketing, Siemens Building Automation, Zug (CH)
10.40–11.00	<b>Systems for holistic energy management – The key to sustainable energy efficiency for buildings</b> Eric Giese, Director of the Building Management Solutions Expertise Center, Imtech Deutschland, Hamburg (Germany)
11.00–11.30	<b>Keynote</b> <b>The “energy transition” challenge – a mammoth task that needs guidance</b> Gunda Röstel, CEO, Stadtentwässerung Dresden; Member of the Supervisory Board, EnBW, Dresden (Germany)
11.30–11.45	<b>Impetus talk</b> <b>Building of the future: Power plant and energy storer</b> Dr. Gerd Hauser, Institute Director, Fraunhofer Institute for Building Physics (IBP), Stuttgart (Germany)
11.45–12.30	<b>Panel discussion</b> <b>Building of the future: Power plant and energy storer</b> Christoph Conrad, Director of Strategy and Marketing, Siemens Building Automation, Zug (CH) Eric Giese, Director of the Building Management Solutions Expertise Center, Imtech Deutschland, Hamburg (Germany) Gunda Röstel, CEO, Stadtentwässerung Dresden; Member of the Supervisory Board, EnBW, Dresden (Germany)

## Session 5

### Water/Wastewater & Urban Sanitation

**Host:** Dieter Ernst, Member of the Board, German Water Partnership, Berlin (Germany)

13.30–13.50	<b>Biological wastewater treatment in three steps – extension of municipal wastewater treatment plants</b> Cornelius Hamann, Sales Water Treatment, DAS Environmental Expert, Dresden (Germany)
13.50–14.10	<b>Green energy from “black water”: the “Jenfeld concept”</b> Dr. Kim Augustin, Head of Department Future Technologies, Head of Competence Network, HAMBURG WASSER, Hamburg (Germany)
14.15–14.35	<b>Automation of water treatment facilities under specific circumstances</b> Dr. Eckhard Roos, Head of Industry Segment Process Automation, Festo, Denkkendorf (Germany)
14.40–15.00	<b>Sustainable water concept: “Wadi Hanifah wetlands” case study, Riyadh</b> Dr. Susan Draeger, Associate Director, Buro Happold, Berlin (Germany)

### Special Session USA

15.10–15.30	<b>Combining smart grid technology &amp; solar power to transform waste &amp; recycling collection</b> Barry Fougere, CEO, BigBelly Solar, Newton, MA (USA)
15.30–16.00	<b>Future trends in city development – city concepts for energy efficiency &amp; renewable energy</b> The Honorable Oliver Pennington, Council Member, District I, City of Houston (USA)

## Session 6

## Urban Mining – Metropolitan Areas as a Materials Resource

**Host:** Dr. Siegfried Behrendt, Institute for Future Studies and Technology Assessment (IZT), Berlin (Germany)

16.00–16.20	<p><b>Keynote</b>  <b>The city as a source of raw materials</b>          Dr. Siegfried Behrendt, Project Director, Institute for Future Studies and Technology Assessment (IZT), Berlin (Germany)</p>
16.25–16.45	<p><b>Urban mining – Innovative recycling approaches</b>  <b>Insight into Fraunhofer R&amp;D Projects</b>          Dr. Jörg Woidasky, Acting Production Area Director, Fraunhofer Institute for Chemical Technology, Pfinztal (Germany)</p>
16.45–17.15	<p><b>Urban mining: From mixed municipal post-consumer waste to high-quality, tailor-made plastic products</b>          Dr. Manica Ulcnik-Krump, Technical Development, ALBA Group plc &amp; Co. KG, Berlin (Germany)</p>
17.15–17.30	<p><b>Efficient approach to securing materials flows, example of the Osnabrück district</b>          Christian Niehaves, CEO, AWIGO Abfallwirtschaft Landkreis Osnabrück, Georgsmarienhütte (Germany)</p>
17.30–17.45	<p><b>Innovative electro-recycling</b>          Kai Kramer, Quality and Environment Management, Electrorecycling, Goslar (Germany)</p>
17.45–18.00	<p><b>Innovative plastics recycling</b>          Dr. Michael Scriba, Managing Partner, mtm Plastics, Niedergebra (Germany)</p>

## Session 7a

## Urban Transformation in Indian Cities through PPP

**Host:** Florian Lennert, Director, Intelligent Cities Forum, InnoZ (Innovation Center for Mobility and Social Change), Berlin (Germany)

9.30–9.35	<p><b>Opening</b>  <b>Welcome address</b>          Mousumi Roy, Director &amp; Head Real Estate &amp; Urban Development Division, Federation of Indian Chambers of Commerce and Industry (FICCI)</p>
9.35–10.05	<p><b>India's Urban Infrastructure Development – Overview &amp; Opportunities for PPP</b>          Dr. Sudhier Krishna, IAS, Secretary, Urban Development, Government of India</p>
10.05–10.20	<p><b>Development of Smart Cities</b>          Amitabh Kant, IAS, CEO &amp; MD, Delhi Mumbai Industrial Corridor Development Corporation (DMICDC) (Invited – tbc)</p>
10.20–10.35	<p><b>Delhi Metro</b>          Dr. Mangu Singh, MD, Delhi Metro Rail Corporation (Invited – tbc)</p>
10.35–10.50	<p><b>The way ahead for urban water Sector reforms in India – A case study: Nagpur PPP</b>          Arun Lakhani, CMD, Vishvaraj Infrastructure Ltd.</p>
10.50–11.00	<p><b>Q&amp;A and summary</b></p>

## Session 7b

**Mobility and Infrastructure in an International Context**

**Host:** Florian Lennert, Director, Intelligent Cities Forum, InnoZ (Innovation Center for Mobility and Social Change), Berlin (Germany)

11.00–11.25	<p><b>Mobility in urban agglomerations – Innovative trainset concepts</b> Dr. Ansgar Brockmeyer, CEO Business Unit Highspeed and Commuter Rail, Rail Systems Division, Sector Infrastructure &amp; Cities, Siemens, Munich (Germany)</p>
11.25–11.50	<p><b>Sustainable mobility and quality of life in “exploding” MegaCities in the southern hemisphere – Trends, investment needs and opportunities for implementing technological and conceptual innovations</b> Dr. Christian Schlosser, German Ministry of Transportation, Construction and Urban Development, Berlin (Germany) – previously Director Urban Transport Section UN-Habitat</p>
11.50–12.15	<p><b>Urbanization and rising mobility as challenge for Railway Operators</b> Simon Giovanazzi, Director Operations and Services, DB International GmbH, Frankfurt/Main (Germany)</p>
12.15–13.30	<p><b>Kick-off talk</b> <b>Integrated urban transport: A global perspective</b> Philipp Rode, Executive Director and Senior Research Fellow, LSE Cities/Urban Age Programme, London School of Economics and Political Science, London (UK)</p>
13.30–14.15	<p><b>Panel discussion</b> <b>Urban mobility concepts as the key to livable cities</b> Sandra Gott-Karlbauer, CEO Business Unit Metro, Coaches and Light Rail, Rail Systems Division, Sector Infrastructure &amp; Cities, Siemens, Vienna (Austria) Dr. Christian Schlosser, German Ministry of Transportation, Construction and Urban Development, Berlin (Germany) – previously Director Urban Transport Section UN-Habitat Simon Giovanazzi, Director Operations and Services, Deutsche Bahn International GmbH, Frankfurt/Main (Germany) Philipp Rode, Executive Director and Senior Research Fellow, LSE Cities/Urban Age Programme, London School of Economics and Political Science, London (UK)</p>

## Session 8

**“China Special”**

**Host:** Dr. Dirk Engelke, Vice President ISOCARP, Rapperswil (CH)

13.45–14.00	<p><b>Opening of the session</b> Welcome Urban Planning Society of China Welcome Vice President ISOCARP Welcome Hannover Fairs China</p>
14.00–14.30	<p><b>Opening Keynote</b> Dr. Johnsonn Lee, Party Secretary, Chongqing Foreign Trade and Economic Relations Commission (China)</p>
14.30–14.55	<p><b>Keynote</b> <b>High Speed Railways in China – Basis for sustainable mobility</b> <b>Connecting Dynamic Regions</b> Dieter Michell-Auli, Managing Director International Markets, DB International GmbH, Berlin (Germany)</p>
15.00–15.20	<p><b>Sustained urban development in China: Sino-German Ecopark, Qingdao</b> Ralf Marohn, CEO, Far Eastern – Fernost Beratungs- und Handels GmbH, Ludwigshafen (Germany)</p>
15.20–15.40	<p><b>The “Green Coal” Revolution in China: 3rd-generation Household Waste Recycling</b> Dr. Axel Schweitzer, Chairman of the Board, ALBA Group, Berlin (Germany)</p>
15.40–16.00	<p><b>Efficient urbanization solutions for China</b> Sebastian Webel, “Climate Change” Theme Manager, Corporate Communications, Siemens, Munich (Germany)</p>
16.00–16.20	<p><b>Low Carbon Future Cities – A Sino-German Cooperation – Strategies for Integrated Climate and Resource Proof Urban Development</b> Dr. Daniel Vallentin, Project Manager, Wuppertal Institute for Climate, Environment and Energy, Wuppertal (Germany)</p>

## Session 8

## “China Special”

**Host:** Dr. Dirk Engelke, Vice President ISOCARP, Rapperswil (CH)

16.20–16.40	<p><b>Best Practices innovative urban projects/ ISOCARP Award for Excellence</b> Dr. Dirk Engelke, Vice President, ISOCARP, Rapperswil (CH)</p>
16.40–17.00	<p><b>Kick-off talk</b> <b>China and Germany – Germany and China: Better Cooperation – Better Cities</b> Stefan Rau, ISOCARP</p>
17.00–17.45	<p><b>Panel discussion</b> <b>City development in China and in “Old Europe” – Opportunities for sharing knowledge and expertise</b> <b>Moderator:</b> Stefan Rau, ISOCARP <b>Panelists:</b> Chonghong QU, Vice Secretary General, Urban Planning Society of China, Beijing (VRC) Dr. Dirk Engelke, Vice President, ISOCARP, Rapperswil (CH) Dr. Axel Schweitzer, Chairman of the Board, ALBA Group, Berlin (Germany) Dieter Michell-Auli, Managing Director International Markets, DB International GmbH, Berlin (Germany) Dr. Daniel Vallentin, Research Group “Future Energy and Mobility Structures”, Wuppertal Institute for Climate, Environment and Energy, Wuppertal (Germany)</p>

## Session 9

## Focus on Mobility in a National Context

**Host:** Uwe Grote, Managing Director, Association of German Transportation Companies; Landesverband Baden-Württemberg, Stuttgart (Germany)

9.30–10.00	<p><b>Guided tour</b> <b>Tour of the city of the future</b> Presentation of the flagship projects</p>
10.00–10.20	<p><b>In-use energy consumption of electric vehicles at the TÜV NORD eSTATION</b> Christian Förster, Electric Mobility, TÜV NORD Mobilität, Essen (Germany)</p>
10.25–10.45	<p><b>Planning and installation of inductive battery charging systems for electric vehicles</b> Thorsten Götzmann, Urban Logistics and Electric Mobility, SEW Eurodrive, Bruchsal (Germany)</p>
10.50–11.10	<p><b>Interconnectedness: The future of mobility</b> Dr. Jürgen Peters, Managing Director, Innovation Center for Mobility and Social Change (InnoZ), Berlin (Germany)</p>
11.10–11.30	<p><b>Public transportation as the backbone for eMobility in urban areas – How we reach sustainability in future urban transportation systems</b> Uwe Grote, Managing Director, Association of German Transportation Companies, Landesstelle Baden-Württemberg, Stuttgart (Germany)</p>

## Special Event

### European Forum for New Traffic Concepts

**Host:** Raimund Nowak and Gerold Leppa,  
CEO Metropolregion GmbH,  
Hannover (DE)

11.30–12.00	<p><b>Opening welcome</b>  <b>Mobil with new energy – politics of infrastructure and energy in Metropolregion Hannover – Braunschweig – Göttingen – Wolfsburg</b>          Klaus Mohrs, Lord Mayor City of Wolfsburg (DE)</p>
12.00–12.20	<p><b>Keynote</b>  <b>Smart City Amsterdam – The best way to stimulate and facilitate electric transport</b>          Maarten Linnenkamp, City of Amsterdam (NL)</p>
12.20–13.00	<p><b>Keynote</b>  <b>International showcase eMobility Berlin</b>          Gernot Lobenberg, Director Agency of eMobility, Berlin (DE)</p>



## Session 10

### Energy Efficiency & Smart Mobility

**Host:** Dr. Reinhold Kassing, Managing Director,  
Federation of Municipal Companies, Landesgruppe  
Niedersachsen, Hannover (Germany)

14.00–14.30	<p><b>Keynote</b>  <b>Smart challenge – Grid, market, meter in the framework of the new law on the energy industry: Market and technology solutions for local and regional utility companies</b>          Dr. Fritz Wengeler, CEO, smartOPTIMO, Osnabrück (Germany)</p>
14.30–15.00	<p><b>Keynote</b>  <b>EIB financing projects in municipal contexts</b>          Barbara Mulder-Bahovec, Acting Director, Financing in Germany Department, European Investment Bank (LUX)          Jörn Thiessen, Financing in Germany Department, European Investment Bank (LUX)</p>
15.00–15.20	<p><b>ICT – Key enabler for the transformation of energy systems</b>          Jürgen Arnold, Chief Technology Officer, EMEA Presales, Hewlett Packard, Althengstett (Germany)</p>
15.20–16.10	<p><b>Panel discussion</b>  <b>Smart Metering: Operating challenges and opportunities for municipal utilities</b>          Nikolaus Brakowski, Chairman of the Board, enexoma, Oerlinghausen (Germany)          Walter Daumann, Head of Smart Metering &amp; Communications, Siemens, Infrastructure &amp; Cities Sector, Smart Grid Division, Nuremberg (Germany)          Barbara Mulder-Bahovec, Acting Director, Financing in Germany Department, European Investment Bank (LUX)          Dr. Fritz Wengeler, CEO, smartOPTIMO, Osnabrück (Germany)</p>

## Session 10

## Energy Efficiency &amp; Smart Mobility

**Host:** Dr. Reinhold Kassing, Managing Director,  
Federation of Municipal Companies, Landesgruppe  
Niedersachsen, Hannover (Germany)

16.10–16.30	<p><b>Options with Urban Road Pricing – Comparing cost and benefits of mileage based charging and cordon charging</b> Dietrich Leihs, Senior Solutions Manager Urban Traffic, Kapsch TrafficCom AG, Vienna (Austria)</p>
16.30–16.50	<p><b>Tomorrow's solution today – Best-in-Class E-Mobility System</b> Dr. Michael Paetsch Ph. D. (CPU), Pforzheim University (Germany)</p>
16.50–17.10	<p><b>Energy from waste – Resource conservation, protection of man and the environment, technology and cost efficiency</b> Georg Gibis, CEO, MYT Business Unit/Zweckverband Abfallbehandlung Kahlenberg, Ringsheim (Germany)</p>
17.10–17.30	<p><b>Saving money &amp; protecting the environment with the "home power plant"</b> Michael Groß, Key Account Management, LichtBlick, Hamburg (Germany)</p>
17.30–17.50	<p><b>Reduction of particulate matter emitted from solid fuel – pilot project for the city of Aachen (Germany)</b> Stephan Ellerhorst, Department Manager Water &amp; Infrastructure, Grontmij, Düsseldorf (Germany)</p>

## Session 11

## From Trendspotting to Market Success

**Host:** Dr. Joachim Richter, Project Finance International,  
Zell a. H. (Germany)

9.30–9.50	<p><b>Guided tour</b> <b>Tour of the city of the future</b> Presentation of the flagship projects</p>
10.00–10.30	<p><b>Sustainable building – The IBA Hamburg expertise</b> Christian Roedel, Project Coordinator, Internationale Bauausstellung Hamburg (IBA), Hamburg (Germany)</p>
10.30–11.00	<p><b>Noise protection + air quality – The multifunctional noise protection wall: durable noise protection for cities</b> Peter Kölsch, Managing Partner, LARIX Lärmschutz, Irndorf (Germany)</p>
11.00–11.30	<p><b>Energy in Megacities – Energy is the key for modern urban living</b> Manuel Zarauza, Managing Director, Seoul Semiconductor, Munich (Germany)</p>
11.30–12.00	<p><b>Energy self sustaining supply of decentralized water reservoirs in water supply and distribution – Comparison of alternative technological concepts for real applications in waste water treatment</b> Alexander Riek, Head of Industry Segment Management Process Automation, Festo, Esslingen-Berkheim (Germany)</p>
12.00–12.30	<p><b>Smart Living in Smart Cities – the solutions for future city?</b> Dr. Hans-Joachim Schneider, Managing Director, Energie City Leipzig, Leipzig (Germany)</p>

## Session 12

**TectoYou – Social Media in Metropolitan Areas**

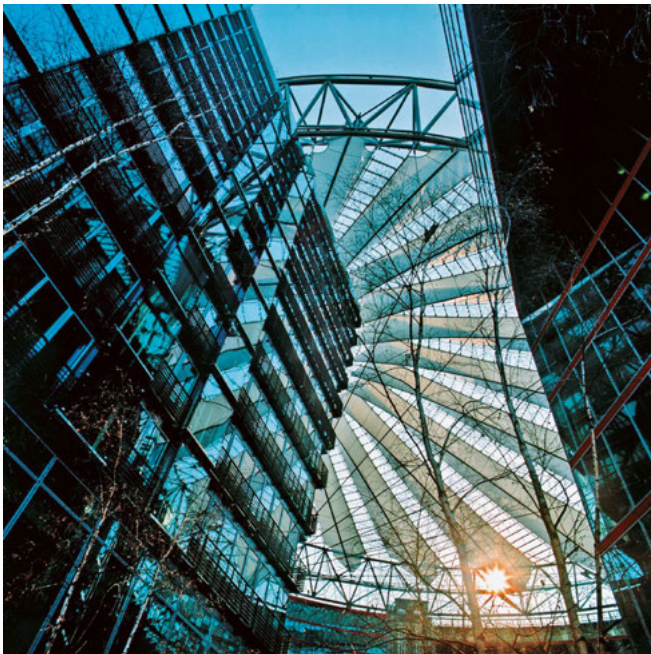
**Host:** Matthias Brucke, EMBETECO, Technology Counsellor (Germany)

13.30–15.30

**Round table**

**How does the social media generation imagine the city of the future?**

Pirate Party and young people



## Metropolitan Solutions Conference

**6 and 7 November 2012**

**Save the Date!**

The majority of the world's population today lives in cities and conurbations, and the proportion of city-dwellers will continue to increase rapidly. But many of our cities can no longer accommodate the demands of their inhabitants – and that situation is only going to get worse in future unless our urban infrastructure is systematically expanded, upgraded and made safer and more reliable.

There are two major challenges to be confronted. Firstly, in order to ensure that urban populations can live together in harmony, their infrastructure needs to be safe, secure and reliable. And secondly, the people who plan and design this infrastructure must live up to their regional and global responsibilities. These challenges are already upon us today – as manifested in daily news reports about security breaches in communications networks, energy supply networks struggling to meet demand, and transport networks that can no longer cope with rising traffic volumes.

The Metropolitan Solutions Conference, with its tagline "Safety and reliability in urban infrastructure," will face these challenges head-on, formulating strategies and options, presenting solutions – and itself making use of global communications infrastructure in the process.

The conference agenda is aimed at senior decision-makers from government, public administration and the business community. They will encounter speakers and thinkers from the worlds of business and science who are looking for new ways forward as they discuss the future of key technologies for urban infrastructure and formulate recommendations for action.

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### Phoenix Contact

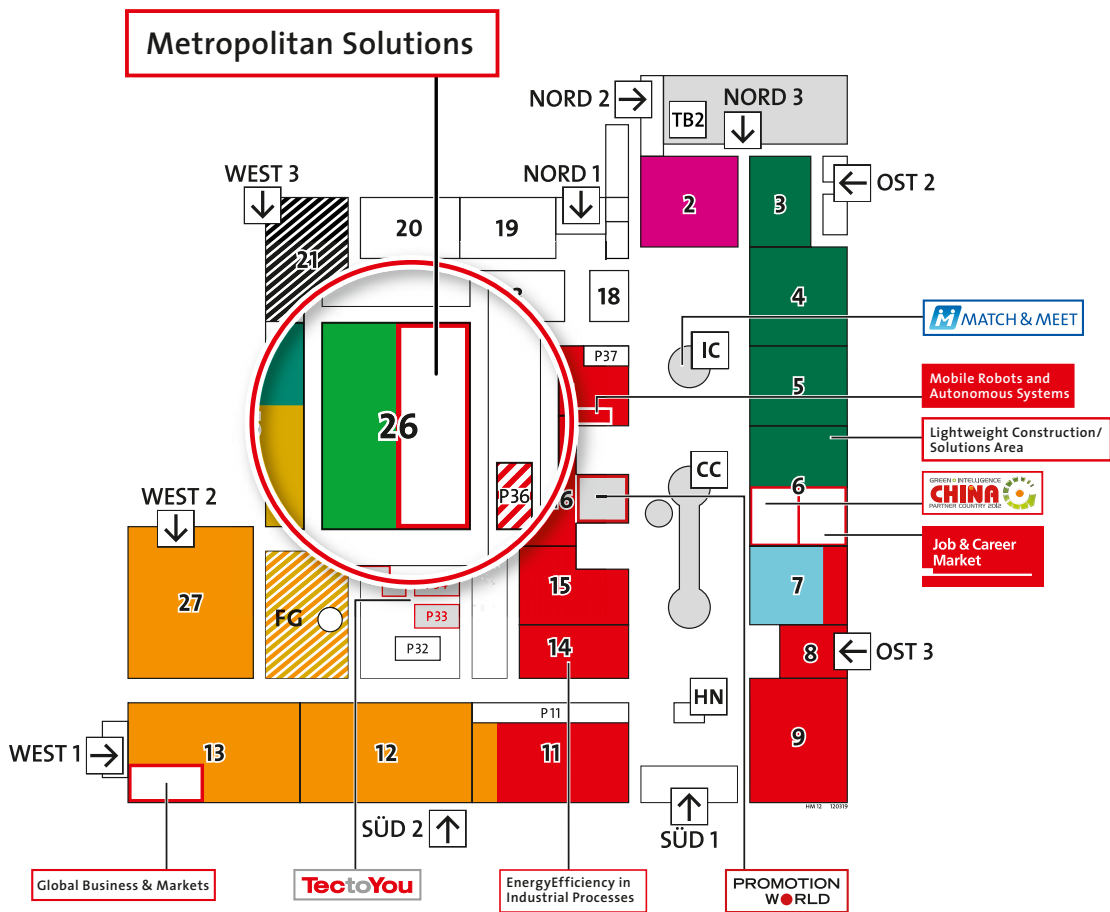
Phoenix Contact is a worldwide manufacturer of components, systems and solutions in the area of electrical engineering, electronics and automation. Today, the family-owned company employs 12,300 people worldwide. In 2011, the company achieved a total revenue of 1.52 billion euros. The corporate headquarters is located in Blomberg (North Rhine-Westphalia) and Bad Pyrmont (Lower Saxony). Seven companies form part of the Phoenix Contact Group Germany. Seven production plants are located abroad. The international company group furthermore comprises approximately 50 own sales subsidiaries. The global presence is strengthened by 30 representations in Europe and overseas. Throughout Germany, Phoenix Contact is represented by a sales network of about 80 engineers.

### Rittal GmbH & Co. KG

Rittal GmbH & Co. KG, which has its headquarters in Herborn, Germany, is one of the world's leading system suppliers for enclosures, power distribution, climate control, IT infrastructure and software & services. Customers from all sectors of industry, from mechanical and plant engineering, as well as from the IT and telecoms market are making use of system solutions from Rittal. Its broad product range also includes complete solutions for modular and energy-efficient data centres: from innovative security concepts for data systems (formerly known as Litcos) through to physical data and system security for IT infrastructures (formerly known as Lampertz). The leading software provider Eplan and the software and consultancy company Mind8 supplement the Rittal product portfolio with interdisciplinary engineering solutions. Founded in 1961, Rittal is now active worldwide with 10 production sites, 63 subsidiaries and 40 agencies. With 10,000 employees worldwide, Rittal is the largest company of the proprietor-run Friedhelm Loh Group of Haiger, Germany. The entire group employs 11,500 people and generated revenues of € 2.2 billion in 2011.

### Siemens

Cities must have fully functional traffic systems, intelligent logistics, efficient energy supplies, and environmentally compatible building technologies. Providing cities with the best possible products, solutions and services is a strategically important task for Siemens AG, and is part of the company's growth strategy. With the establishment of the Infrastructure & Cities Sector the company clearly positions itself to perform this task in terms of technology offerings, organization, and personnel. The new Sector bundles Siemens' global expertise and activities to offer cities technical solutions for sustainable mobility, environmental protection and energy savings.



- |                            |                              |   |                                 |
|----------------------------|------------------------------|---|---------------------------------|
| ↑ Entrance                 | FG Open-air site             | Industrial Automation<br>Halls 7-9, 11, 14-17 | Industrial Supply<br>Halls 3-6  |
| IC Information Center      | Robotation Academy<br>(P 36) | Energy<br>Halls 11-13, 27, FG                 | CoilTechnica<br>Hall 25         |
| CC Convention Center       | PROMOTION WORLD<br>(Hall 16) | MobiTec<br>Hall 25, FG                        | IndustrialGreenTec<br>Hall 26   |
| HN House of Nations        | Fastener Fair<br>(Hall 21)   | Digital Factory<br>Hall 7                     | Research & Technology<br>Hall 2 |
| TB2 Conference Area Hall 2 |                              |   |                                 |



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