



WORLD SUSTAINABLE ENERGY INSTITUTE

# VIENNA

For the 9th year, Vienna ranks the highest **QUALITY OF LIVING** according to the Mercer Studies.

Well-structured public transport as well as numerous cultural and leisure facilities, health standards, political stability, economic situation, education system and nature conservation were decisive for Vienna's renewed top ranking.

*20 March 2018, New York, U.S.A.*

*[www.mercer.com](http://www.mercer.com)*



*Quality of Living*



© Shutterstock/vichie81 - Cover © iStockphoto.com / plac77

## ABOUT

**WORLD SUSTAINABLE ENERGY INSTITUTE (WSEIN)** is an international institution that promotes and encourages sustainability with the focus on the development of solutions for current global environmental challenges.

With its unique know-how WSEIN establishes interdisciplinary research in the fields of Sustainable Energy, Mobility, Environment and Community.

WSEIN cooperates worldwide with universities, cities, municipalities and organisations which are interested in sustainable development. Our institute organizes trainings, workshops, onsite and web-based webinars to support the change in the city and community.

Gökhan Yildirim, MSc  
President of WSEIN

"My vision is to see our future generation  
growing up in Sustainable Cities like Vienna."  
Gökhan Yildirim



© Ismail Gökmen

*World Sustainable  
Energy Institute*

# WSEIN

## WORLD SUSTAINABLE ENERGY INSTITUTE

- is an international institution that encourages sustainable solutions to current global environmental challenges
- has been established in 2014 and is headquartered in Vienna – Austria
- brings decisions makers, academic leaders, entrepreneurs and youth together for encouraging sustainable solutions for our planet in positive
- supports the change in the city and community for a sustainable world
- discusses behavior, culture to prevent our natural resources
- believes in sustainable development if developing countries learn from the mistakes of developed countries
- supports technologies for developing new systems to prevent the resources of our nature
- talks about the impacts of climate change and how we can prevent nature
- discusses sustainable solutions in the areas of energy, mobility, environment and commitment of the community
- cooperates worldwide with universities, cities, municipalities and organisations which are interested in sustainable development
- supports sustainable entrepreneurship

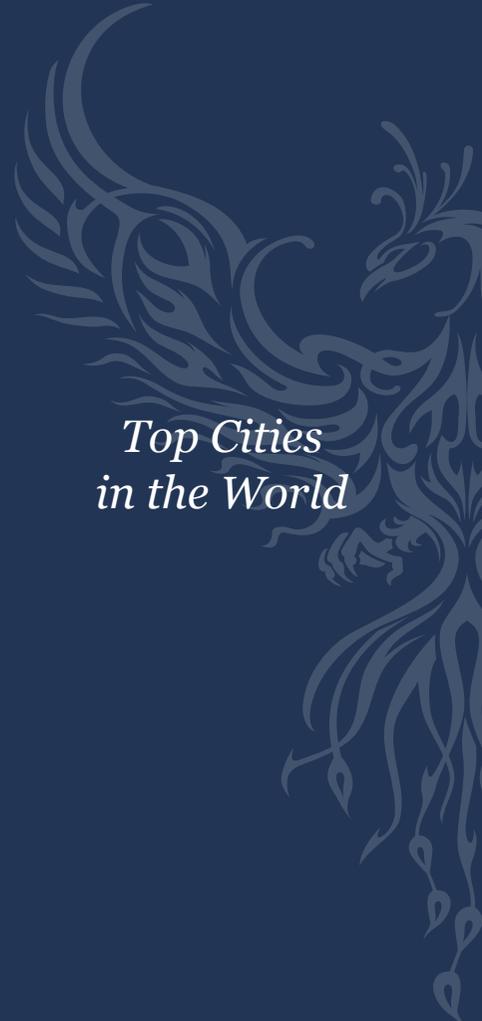
## OUR SERVICES

- CONSULTING
- CASE STUDIES
- MANAGEMENT
- PLANNING
- TRAINING
- ROAD MAP HOW TO BUILD A SELF-SUSTAINING CITY
- ESTIMATED COSTS
- PRESENTATION

## SUSTAINABLE CITY

To build a **SUSTAINABLE CITY**, we will consider the best practiced examples from the top cities of the world with their special chosen characteristics.

- **BARCELONA** is a pioneer in smart city and low-carbon solutions
- **HONG KONG** is a leader in the use and adoption of smart cards which are already used by millions of residents for services like public transit, library access, building access, shopping and car parks
- **COPENHAGEN** has committed to carbon neutrality by 2025 and 40% of its citizens regularly commute via bicycle
- **TOKYO** is creating a smart town in the suburbs in partnership with major industries
- **LONDON** is famous with sustainability innovations like congestion tax and its robust transit system
- **PARIS** has a highly successful bike sharing program known as the Lib, mayor also launched a similar model for small electric vehicle like Auto Lib
- **TORONTO** is setting up a smart commute Toronto initiative to increase the city's transit efficiency
- **VIENNA** is the smartest city in the world – in the areas of mobility, environment, energy and community, sustainable housing, business and leisure facilities, health and wellness concepts, hub center of the region with entrepreneurs, start-ups, universities and education



*Top Cities  
in the World*

# SMART CITY VIENNA

VIENNA is one of the most successful cities in the world concerning social, ecological and economic standards.

Smart City Vienna is ranking top in quality of living for nine years in a row according to the Mercer Studies.

City of Vienna stands for social responsibility and technological innovation as sustainable solutions concerning infrastructure, mobility, environment, energy and community.



## SUSTAINABILITY 4 ALL

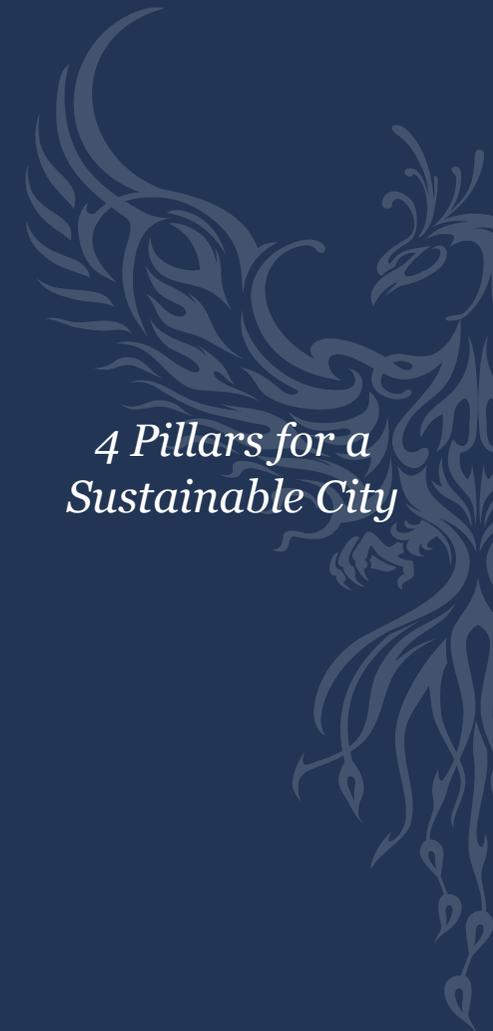
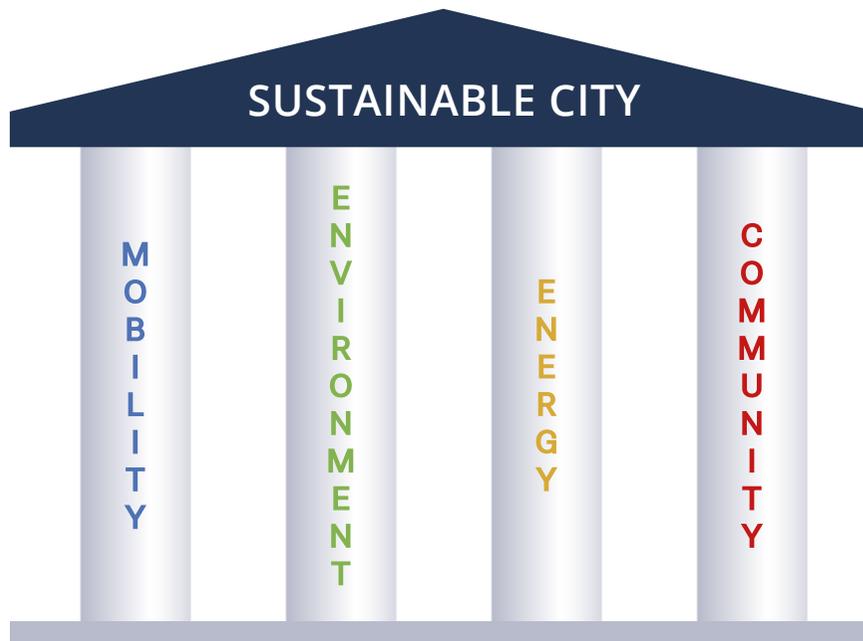
To build a Sustainable City, we start with the hard regulations and new regulations which we are going to develop. For this scoup of work we need qualified and top experts.

Our team of experts works on solutions for cities and has experience in **SMART CITY CONCEPTS**.

WSEIN integrates four disciplines which are

### Sustainable Mobility, Environment, Energy and Community

We believe that these are the four pillars for a healthy city.



*4 Pillars for a  
Sustainable City*

# TEAM

<div data-bbox="286 354 358 437"></div> <div data-bbox="367 354 824 464"> <p><b>Prof. Hermann Knoflacher / Mobility</b> University of Technology Vienna (TU Wien) Institute of Transportation, Research Center of Transport Planning and Traffic Engineering</p> </div> <div data-bbox="286 493 358 576"></div> <div data-bbox="367 493 779 603"> <p><b>Dr. Harald Frey / Mobility</b> University of Technology Vienna (TU Wien) Research Center of Transport Planning and Traffic Engineering</p> </div> <div data-bbox="286 632 358 715"></div> <div data-bbox="367 632 779 715"> <p><b>Dr. Amela Ajanovic / E-Mobility</b> University of Technology Vienna (TU Wien) Energy Economics Group</p> </div> <div data-bbox="629 780 817 825"> <p><b>MOBILITY</b></p> </div>	<div data-bbox="875 354 947 437"></div> <div data-bbox="956 354 1413 464"> <p><b>Prof. Karl E. Lorber / Waste Management</b> Montanuniversität Leoben, Austria Institute for Sustainable Waste Management and Technology (IAE)</p> </div> <div data-bbox="875 493 947 576"></div> <div data-bbox="956 493 1429 576"> <p><b>Mag. E. Moser-Marzi / Waste Management</b> Attorney-at-Law, Environmental and Waste Law Vice-President of WSEIN</p> </div> <div data-bbox="896 780 1173 825"> <p><b>ENVIRONMENT</b></p> </div>
<div data-bbox="667 906 817 951"> <p><b>ENERGY</b></p> </div> <div data-bbox="286 1031 358 1114"></div> <div data-bbox="367 1031 824 1114"> <p><b>Prof. Reinhard Haas / Renewable Energy</b> University of Technology Vienna (TU Wien) Energy Economics Group</p> </div> <div data-bbox="286 1142 358 1225"></div> <div data-bbox="367 1142 835 1225"> <p><b>DI Gökhan Yildirim / City Project Manager</b> CEO Reviesta Consulting Group President of WSEIN</p> </div> <div data-bbox="367 1254 748 1283"> <p><b>Mehmet Er / Mechanical Engineer</b></p> </div>	<div data-bbox="896 906 1135 951"> <p><b>COMMUNITY</b></p> </div> <div data-bbox="875 1031 947 1114"></div> <div data-bbox="956 1031 1440 1088"> <p><b>Brunhilde Schram, MAS, MBA / Industry 4.0</b> CSR/Sustainability Expert and Consultant</p> </div> <div data-bbox="875 1142 947 1225"></div> <div data-bbox="956 1142 1424 1200"> <p><b>Univ. Prof. Dr. Roland Ernest Poms</b> Food Safety, Natural Resources and Life Sciences</p> </div> <div data-bbox="875 1254 947 1337"></div> <div data-bbox="956 1254 1382 1311"> <p><b>Gerlinde Reinisch / Corporate Identity</b> Graphic Design &amp; Web</p> </div> <div data-bbox="956 1366 1317 1423"> <p><b>Orchun Tüten and Team / Video</b> Video &amp; Animation Expert, Canada</p> </div>



## MOBILITY TEAM

PROF. HERMANN KNOFLACHER and DR. HARALD FREY are the head of the Sustainable Mobility Team.

*Working Team 4 Persons*

It is obvious that transportation and traffic with its energy consumption and emission have a negative effect on environment. Traffic plays a key role in air pollution and global warming.

We are aiming to develop traffic planning systems that meet the needs of community and at the same time sustain Earth's ecosystem.

For designing a Sustainable City we are going to check all components which produce traffic in the city.

We have different types of activities in the city; the traffic activity of the industrial zones, residential areas, health centers, sport centers, finance and business centers.

We analyse the city as below

- Traffic Planning
- Energy in Transport Systems
- Environmental Impacts
- Solutions for Sustainable City
- Solutions for Companies

Traffic requires 50% of the total energy consumption in the city.



© Shutterstock / JackQ



*Sustainable  
Mobility*



## **Univ. Prof. DI Dr. Techn. Hermann Knoflachner**

### **RESEARCH FOCUS**

Design of Transport Elements  
Transport System User Behavior  
Traffic-Infrastructure and Mobility  
Sustainable Development of Cities and Mobility  
Traffic Safety  
Basic Interdisciplinary Research  
Sustainable Urban and Transport Development

### **EXPERIENCE**

University Professor at the Institute of Transportation, Research Center of Transport Planning and Traffic Engineering, University of Technology Vienna (TU Wien)  
Transport Planning Masterplans for Cities, Regions, Countries  
9 Books, more than 500 Scientific Publications, 500 Expert Opinions and more than 1.000 Lectures in the field of Transport Planning and Traffic Engineering worldwide (USA, Europe, Asia, Australia)

## ENVIRONMENT TEAM

PROF. KARL LORBER is the head of the Sustainable Environment Team.

*Working Team 4 Persons*

Growing population as well as growing economical standards generate growing production and increasing consumption of energy and material.

On the one hand the accelerated resource consumption in recent decades had induced economic growth and raised living standard in industrial countries. But on the other hand it reduced natural resources, like forests, clean water and air and biological diversity of the planet. Additionally every product will return as or cause WASTE.

Up to special limit earth is able to regenerate itself through waste absorption by land, water, and protection from harmful ultraviolet radiation (by the stratospheric ozone layer). But nowadays waste already exceeds these limits and causes damages of Earth's ecosystem.

*Sustainable City will be analysed due to different zones*

- Industrial Zone
- Residential Areas
- Sport & Health and Leisure Time Areas

*Waste Management concepts will be developed for each chapter*

- Environmental Policies
- General City Waste Management Concept
- District Heating and Cooling
- Industrial Clean Production Policies
- Building Waste Management Concepts



© Shutterstock / NicoElNino



*Sustainable  
Environment*

## **Prof. Dr.-Ing. Karl E. Lorber**



### **SPECIAL QUALIFICATIONS**

Environmental Engineering  
Analytical Chemistry  
Sustainable Waste Management  
Treatment & Disposal Technologies  
Landfilling  
Site Remediation  
Brownfield Development  
Project Management  
Peer Review & Editorial Work

Full Professor (o.Univ.-Prof.) since 1993 for "Sustainable Waste Management, Landfill-Technology and Site Remediation" at Montanuniversität Leoben, Austria  
Head of the Institute for Sustainable Waste Management & Technology (IAE)  
Appointed Member of the National Advisory Board of the Austrian Ministry of Environment (WASA)  
Government approved Civil Engineer and authorized Consultant (Expert Witness) for Waste Management, Landfill Technology, Site Remediation and Environmental Engineering

## ENERGY TEAM

PROF. REINHARD HAAS and DR. AMELA AJANOVIC are the head of the Sustainable Energy Team.

*Working Team 4 Persons*

## HOW TO HEADING TOWARDS A SUSTAINABLE ENERGY CITY

### METHOD OF APPROACH

In heading towards a sustainable energy city two major analyses have to be conducted. The first category is the analysis of the existing infrastructure and how it can be changed, renewed retrofitted and how a switch to renewable energy carriers can be brought about. The second category refers to planning of future infrastructure and supply with carbon-free energy. In addition, it is important to consider aspects of urban planning and the specific characteristics of the city. It is a matter of how to separate or link and integrate residential areas, industrial zones, as well as leisure and entertainment activities.

### CORE OBJECTIVE

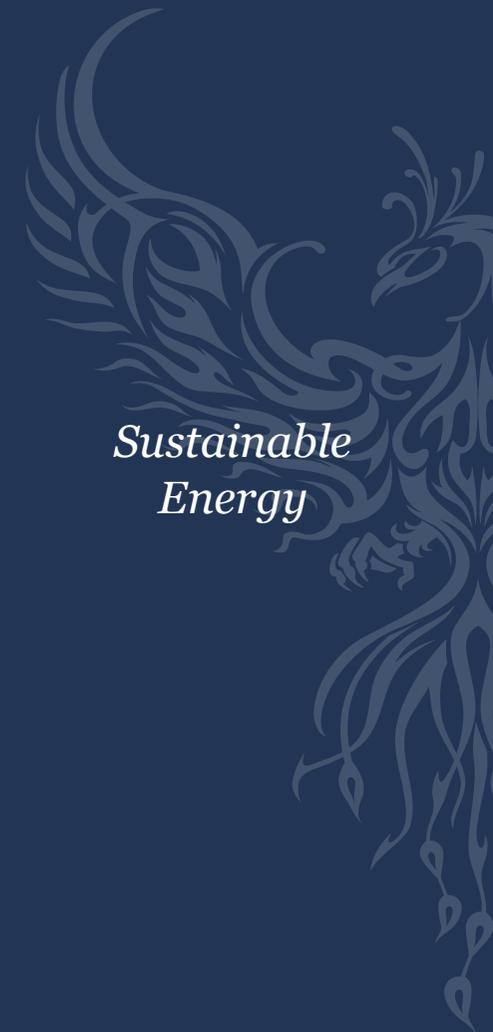
The core objective of this work is to identify a step-by-step programme to change a city towards a sustainable energy city.

*This includes four categories of energy use that has to be analysed*

- Heating and cooling of residential and office buildings
- Industry-specific uses (e.g. process heat)
- Electricity supply
- Transport



© iStockphoto.com / gilleslougassi



*Sustainable  
Energy*

## Univ.-Prof. Reinhard Haas, PhD



### SPECIAL QUALIFICATIONS

Prof. Reinhard Haas is University Professor of Energy Economics at Vienna University of Technology in Austria. He teaches Energy Economics, Regulation and Competition in Energy markets, and Energy Modeling.

### RESEARCH FOCUS

Prof. Haas current research focus is on

- (i) evaluation and modelling of dissemination strategies for renewables
- (ii) modelling paths towards sustainable energy systems
- (iii) liberalisation vs regulation of energy markets
- (iv) energy policy strategies

He works in these fields since more than 20 years and has published various papers in reviewed international journals. Moreover, he has coordinated and coordinates projects for Austrian institutions as well as the European Commission and the International Energy Agency.

## COMMUNITY TEAM

PROF. DR. ROLAND ERNEST POMS is the head of the Sustainable Community Team.

*Working Team 6 Persons*

### SUSTAINABLE COMMUNITY – GENERAL DEFINITION

Sustainable communities are places where people want to live and work, now and in the future. They meet the diverse needs of existing and future residents, are sensitive to their environment, and contribute to a high quality of life. They are safe and inclusive, well planned, built and run, and offer equality of opportunity and good services for all.

#### WHAT IS A SUSTAINABLE COMMUNITY FROM THE PERSPECTIVE OF WSEIN

A sustainable community is one that is economically, environmentally, and socially healthy and resilient. It meets challenges through integrated solutions rather than through fragmented approaches that meet one of those goals at the expense of the others. And it takes a long-term perspective – one that's focused on both the present and future, well beyond the next budget or election cycle.

*A sustainable community's success depends upon its members commitment and involvement through*

- Active, organized, and informed citizenship
- Inspiring, effective, and responsive leadership
- Responsible, caring, and healthy community institutions, services, and businesses

As a result, a sustainable community manages its human, natural and financial resources to meet current needs while ensuring that adequate resources are equitably available for future generations.



© Shutterstock / Rawpixel.com



*Sustainable  
Community*



## Univ. Prof. Dr. Roland Ernest Poms

### SPECIAL QUALIFICATIONS

Prof. Poms focuses in his scientific work on food safety, public health and quality assurance.

### EXPERIENCE

Since 2012, Professor h.c. for Food Safety Analytics at BOKU – University of Natural Resources and Life Sciences, Vienna, Austria

Since 2011, Professor h.c. for Food Safety and Public Health at Sichuan University and Vice Chair of the Academy for Public Health Laboratories, Chengdu, China

Since 2011, Co-Founder and Secretary General, MoniQA Association, Vienna, Austria

Since 2009, Member of the Advisory Boards of various International Research Projects: DREAM (FP7), WINWIN (Austria-Senegal), MycoRed (FP7), Food Security in Ethiopia (UNIDO and OFID)

Since 2009, Co-Editor in Chief, QAS - Quality Assurance and Safety of Crops & Foods

Since 2008, Scientific Advisor, ADRA (Austria) – Adventist Development and Relief Agency

Since 2008, Chair of the Supervisory Board, GHI – The Global Harmonisation Initiative, Vienna

Since 2006, Affiliated Staff and Lecturer, BOKU – University of Natural Resources and Life Sciences, Vienna

# INTEGRATIVE SUSTAINABLE CITY SOLUTIONS

MSC. GÖKHAN YILDIRIM is the head of Integrative Sustainable City Solutions Team.

*Working Team 6 Persons*

Mr. Yildirim has developed a unique method combining Mobility, Environment, Energy and Community for a Sustainable City Concept.

He encourages sustainable development and supports the change in the city.

With a team of highly qualified professionals, Mr. Yildirim works on integrated sustainable city solutions and problem solving concepts.

## INTEGRATED SUSTAINABLE CITY SOLUTIONS

contain

- Sustainable Mobility  
*City Traffic Planning*
- Sustainable Environment  
*Waste to Energy*
- Sustainable Energy  
*Renewable Energy Systems*
- Sustainable Community



© Shutterstock / carlos castilla



*Sustainable  
City Solutions*



## MSc. Gökhan Yildirim

### SPECIAL QUALIFICATION & EXPERIENCE

Studies of Engineering at the Technical University Yildiz in Istanbul (BSc)  
Diploma Studies (MSc) at the Technical University Vienna, Austria  
Studies focus on Integrative Traffic Planning, Transport Planning, Management of Municipalities

2010 – 2011, Sustainable Energy Solutions, University of Applied Sciences, FH Pinkafeld  
2010, Waste to Energy Certificate, Austrian Water and Waste Management Association (ÖWAV)  
2008, Diploma Course in Project Management, University of Applied Sciences – BFI Vienna  
2007 – 2008, Management College – Business Management / WIFI Vienna

Since 2014, President & Founder of World Sustainable Energy Institute (WSEIN)  
Since 2013, Global Director & Founder of WSE Initiative  
2011, US Program “A new beginning – Entrepreneurship & Business Innovation”  
Since 2010, DEIK – DTIK, World Turkish Business Council Europe Region Member of Austria  
Nov 2009, Founder of Reviesta Türkiye in Istanbul, Turkey  
March 2009, Founder & Manager of Reviesta Consulting Group Environmental Technologies e.U., Austria  
2007 – 2008, REHAU – Unlimited Polymer Solutions, Marketing, distribution and control in South East Europe

## SUSTAINABLE MOBILITY

UNIV. PROF. HERMANN KNOFLACHER



## SUSTAINABLE ENVIRONMENT

PROF. DR.-ING. KARL E. LORBER



## INTEGRATIVE SUSTAINABLE CITY

MSC. GÖKHAN YILDIRIM



## SUSTAINABLE ENERGY

UNIV. PROF. REINHARD HAAS



## SUSTAINABLE COMMUNITY

UNIV. PROF. DR. ROLAND ERNEST POMS



*Head of  
Working Teams*



**WORLD SUSTAINABLE ENERGY INSTITUTE**

VIENNA – AUSTRIA

office@wsein.org  
www.wsein.org  
www.world-sustainable-energy.com

Registered in Vienna – Austria  
Registration Number  
ZVR-Zahl 501501845

