



PREFACE

Manfred SCHRENK,

*Conference Director,
President CORP – Competence Center of Urban and Regional Planning*

WELCOME to REAL CORP 2021, the 26th International Conference on Urban & Regional Development and Spatial Planning in the Information Society!

Urbanisation of the world is progressing rapidly and seems to be an unstoppable process. According to current forecasts, more than 6 billion people will live in cities in 2050. Compared to 1950, this is almost a tenfold increase in 100 years, resulting from global population growth and the continuing influx of people into urban areas. As a rule, population growth also means additional land requirements. Urban growth often takes place across administrative borders, cities grow into their surrounding areas, (cross-border) urban and metropolitan regions emerge and also influence the development of rural areas, where in turn numerous initiatives for independent sustainable development emerge.

This dynamic development is accompanied by enormous challenges for the organisation and maintenance of urban processes, particularly in the areas of technical and social infrastructure, affordable housing, mobility, recreation, security of supply, etc. Sustainability, resilience and smartness are essential characteristics of cities and regions and are often compared by means of benchmarks. The key question is how quality of life can be maintained and improved in the face of dynamic development of living space.

Even though the world is currently under the spell of the COVID-19 pandemic, it is clear that climate and environmental issues will be decisive for urban development in the coming decades. Climate adaptation strategies will play a central role, because especially in cities, high density, increasing land sealing, lack of greenery and inadequate ventilation increasingly lead to the formation of urban heat islands and the problem of urban warming.

How can urban and spatial planning and all related disciplines contribute to maintaining urban flows, functioning infrastructure and preserving and improving the quality of life? How can urban and rural living spaces actively cross-fertilise each other's development?

The REAL CORP 2021 call for papers was very broad and invited for contributions from all areas of expertise dealing with cities, regions and spatial development to gain a holistic and multi-faceted view on challenges and future scenarios in the urban realm. Next to science-based contributions we also asked for practise-based reports on short term actions and/or long-term strategies on urban and regional development.

This year's conference also featured some special topics in close co-operation with the respective partners mentioned:

- New Social Housing – Urban Climate Adaptation Strategies and Affordability of Life: How can that work? (partner: IBA Vienna)
- EU Mission: Climate Neutral and Smart Cities (partners: BMK, AustriaTech)
- Integrated Spatial and Energy Planning (partner: IRUB/BOKU)
- Cross-Border Spatial Development (partner: RWTH Aachen)
- Emergencies, Disasters, Epidemics – and the Big One: Pandemics (coordination: Judith Ryser)
- Sustainable Urbanisation Global Initiative: Food-Water-Energy Nexus (partners: BOKU, AIT, HFT – Stuttgart University of Applied Sciences)

And last but not least, REAL CORP 2021 was also host of the first ISOCARP International Regional Event. Alongside to the annual world congress, ISOCARP is starting to experiment smaller-scale symposia which focus on issues of local importance, and which can be repeated on several occasions throughout the year in different regional and macro-regional contexts.

This year we brought together some 250 participants from more than 30 countries worldwide. The main goal of the REAL CORP conference series is to bring together leading experts in the field of spatial planning, geoinformation and related disciplines to exchange their knowledge, share their ideas, discuss current developments and get together for face to face networking leading to the development of new thoughts, partnerships and projects.

In times of a pandemic, this can be quite difficult, as travel warnings and other restrictions make the organisation of such an event very difficult and many decisions are based on uncertain forecasts. REAL CORP 2021 will take place as a hybrid conference: On the one hand, we have tried to welcome as many visitors as possible in Vienna in spite of all the restrictions, but on the other hand, it was also very important to us to make all the contents of the conference accessible to those participants who, for whatever reason, were not able to come to Vienna.

The success of the REAL CORP conferences is – clearly without doubt – the result of the efforts of participants, reviewers, and the conference organising team consisting of CORP association and the Institute of Spatial Planning, Environmental Planning and Land Rearrangement (IRUB) at the University of Natural Resources and Life Sciences. We would like to acknowledge the Reviewer Team and Programme Committee members for their valuable voluntary help with the review process.

Our thanks go to all participants and authors of the submitted papers as well. The proceedings of this year's conference contain around 130 scientific papers; more than 100 of them were selected after a double-blind, double-stage (for both abstracts and full papers) peer-review process for publication and presentation at the 26th International Conference on Urban Planning and Regional Development in the Information Society, REAL CORP 2021. The non-reviewed papers were accepted by the programme committee after a double-blind abstract review. The conference is held from 7 to 10 September 2021 in Vienna, Austria, as well as in virtual space.

Welcome to Vienna! Have a great conference!

Manfred SCHRENK, Clemens BEYER & the REAL CORP Team



Leonore GEWESSLER

Austrian Federal Minister for Climate Action, Environment, Energy, Mobility, Innovation and Technology

Dear honoured experts and planners!

I appreciate this profound pool of knowledge and expertise gathered in the course of this conference, which is more than welcome and urgently required to tackle our multi-dimensional challenges in sustainability and climate-neutrality whilst ensuring a high quality of life.

You as planning professionals and as planning community will have a key-role in the transformation of our society. High complexity and quick pace of change call for a new understanding of planning beyond traditional skills, tasks and singular disciplines. We need planners as visionaries, enablers for innovation, as intermediaries between different sectors and responsibilities, as coordinators and integrators, as advisors, but also as critical observers and sparing partners to challenge policy and administration.

I am sure that this conference can significantly contribute to the broadening of the knowledge and solution base, foster the exchange of experiences and will allow for joining forces and concerted actions in future planning in Austria and beyond.



Gernot STÖGLEHNER

*Conference Host, Professor of Spatial Planning
Head of the Institute of Spatial Planning, Environmental Planning and Land Rearrangement
at BOKU Vienna*

Dear Participants of REAL CORP 2021,

a warm welcome at BOKU University, either virtually or in real! We are in a time of disruptions. The climate crises enters our daily lives. Storms, heavy rain, floodings, drought, heat, forest and bush fires, the news are full of such events, making the necessity of climate protection clear to everyone, but also mitigation must be planned.

At the same time we still are in the middle of a pandemia, and coping strategies open a window in a digital future. Digitalisation only starts with the broadband infrastructure, and will impose major changes to the ways we work and we organize our daily lives. In a study at my Institute we combined major studies about change in working procedures with the local labour markets on a municipality base. We found out, that up to 70% (!) of all work that now provides income to the people will be substituted by computers and machines.

Urban areas are a bit less hit by this transformation than rural areas, but on national average about 56% of all activities that provide income now might be substituted. This change is massive and can hopefully be utilized to create more jobs that consume less resources. And this transformation will change the way how we utilize space, whit major impacts on urban and regional planning. This transformation also offers opportunities to turn towards new planning solutions: **CREATING HABITATS FOR THE 3RD MILLENNIUM SMART – SUSTAINABLE – CLIMATE NEUTRAL.** Therefore, I wish the conference participants many interesting new insights, fruitful discussions, and I hope you have a good time in Vienna with new chances to meet people at CORP!

Welcome to Vienna!

Prof. Gernot Stöglehner and the whole IRUB/BOKU team



Hubert HASENAUER

Rector of BOKU Vienna, Professor of Forest Ecosystem Management

Dear Participants of REAL CORP 2021,

a warm welcome at the 26th REAL CORP, one of the major conferences in Europe on urban planning and regional development of our society. The University of Natural Resources and Life Sciences (BOKU) with about 2,900 faculty and staff members and 11,000 students, is strongly committed to sustainable development according to the UN sustainable development goals. In our research, teaching and third mission, we integrate sustainable development by managing natural resources and biodiversity as well as the environmental planning for cities and regions including their infrastructure.

With about 1,100 SCI publications annually and around 1,000 ongoing research projects, our research is well perceived within the scientific community and fundamental for our 7 bachelor, 27 master and 9 doctoral programs. BOKU's 15 departments cover all aspects of sustainable transition including the planning and design of living spaces; the production and utilization of (renewable) raw materials; technological, environmental, social and economic aspects up to impact assessment; the protection of biodiversity, soil, water, climate and landscape as well as resource recovery with respect to circular economy.

The conference topic "Creating habitats for the 3rd millennium – smart – sustainable – climate neutral" covers key BOKU competences in research, teaching and societal engagement. It fits perfect to one of the current key policy fields "Fit for 55" proposed by the European Union. I thank the organisers as well as the sponsors for making this meeting possible and wish all of you an inspiring conference with exciting days in Vienna.

With kind regards,
Univ.Prof. Dr. DDr.h.c. Hubert Hasenauer