

## NEW EUROPEAN BAUHAUS

### *Focus Points of the Austrian Federal Chamber of Architects and Chartered Engineering Consultants* **BKZT – Bundeskammer der ZiviltechnikerInnen**

#### *The vision*

Transition of the construction sector into a sector that is committed to the principles of a sustainable and inclusive **“Baukultur”** - development and that reduces negative environmental impacts in all fields of construction on the base of optimized life cycle costs and minimized resource consumption. Furthermore, it should become a constitutive and indispensable element in actively combatting climate change, creating new, healthy living spaces and habitats and enabling material cycles for the benefit of current and future generations.

#### *Who we are*

The Austrian Federal Chamber of Architects and Chartered Engineering Consultants (BKZT) represents the interests of independent, highly qualified, authorized and sworn Architects and Engineers from all engineering branches (= **ZiviltechnikerInnen**).

The Austrian Architects and Chartered Engineering Consultants, who are legally obliged to professional independence, cover like no other professional group the entire planning – all stages from design to construction, site supervision etc. - consulting and appraising competence related to the built environment, including open spaces and infrastructure: from spatial and landscape planning and environmental planning through construction and operation to urban planning and deconstruction.

The legal requirement of **professional independence** combined with strict separation between planning and execution of construction projects - Austrian Architects and Chartered Engineering Consultants are not allowed to act as a contractor on construction sites or be part of the construction industry - allow the provision of planning services in accordance with the highest requirements as regards transparency and good governance. The planning solutions developed by Architects and Chartered Engineering Consultants therefore fulfil the highest requirements of architectural and technical quality and economic efficiency taking into account the interests of the public and the environment.

Austrian Architects and Chartered Engineering Consultants’ professional practice is based on a wide range multidisciplinary education. This enables the profession to

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integrate the various creative and technical solutions into an overall architectural, landscape, spatial, urban, infrastructural ... project. Additionally, a long tradition of cooperation between involved professions leads to excellence in project results.

The highest cultural demands combined with the necessary structural innovation and a profound scientific knowledge in different areas of expertise are essential to combat climate change.

These experiences – visible in a high number of realized Best Practice Examples – shall now be shared within the New European Bauhaus Initiative.

### ***The mission***

Making this vision come true requires a Europe-wide approach and the cooperation of all relevant stakeholders: Clients, planners, construction industry and manufacturers, commercial builders and crafts as well as politics and administration as those who are setting the framework conditions. Thus, Austrian Architects and Chartered Engineering Consultants take a pioneering role in enhancing the Green Deal targets withing the NEB movement.

#### **Focus Points of action are:**

- Enforced engagement of spatial planning and spatial policy to reduce ground sealing, land use and land use change;
- Consistent nationwide promotion of the inner development (quality-based re-use of derelict areas) of cities, small towns and villages and restraint to develop untouched countryside for planning developments;
- Sustainable modernization of urban and village structures in the focus of the incipient climate change, the post-oil society and the information age;
- The preservation and revitalization of the building stock as an essential contribution to the circular economy and the preservation of the cultural heritage, with a special focus on social housing, workers' settlements and public buildings;
- The development of new construction products and processes in cooperation with planners, construction product manufacturers, the construction industry by development of new cooperation models (lifespan, recyclability, reduced environmental impact, renewable energy, ...);
- Enhancing the understanding of the diverse interactions between built and social space as well as technical and green infrastructure as a planning issue and solving them through equal cooperation between different specialist branches;
- Enforced training on sustainable and inclusive planning and construction for prospective Architects and Engineers at universities and other educational institutions in the tertiary sector and implementation of a model of permanent continuing education within the Chambers of Architects and Chartered Engineering Consultants;



- The promotion of quality competition for planning services (mandatory application of the best bidder principle (MEAT), mandatory application of Architectural Design Competitions in public procurement, well-defined and easily applicable ecological criteria in procurement law, ...)
- Incentives for the development of climate-friendly architecture and “Baukultur” for a new culture of renovation through open competitions, awarding of prizes and subsidies.

Based on the criteria of the NEB prize several focal points were identified where a contribution to realize the NEB goals is urgently required:

## ***1 Techniques, materials and processes for construction and design***

Development of new construction materials and products as well as promotion of secondary construction materials in cooperation with the manufacturers, (regional) crafts, recycling industry and planners (assembling conditions, deconstruction, separability and recycling, environmental impact);

Promotion of the use of quality-assured secondary construction materials by use of different stimuli and establishment of a better system of equivalence to CE-marked construction products; Integration of the Green Deal goals in the new Construction Products Regulation (especially Basic Work Requirement 7);

Implementation of well-defined and easily applicable ecological criteria in public procurement legislation;

Implementation of mandatory application of the Architectural Design Competition in public procurement, mandatory application of the best bidder principle (MEAT) for planning services:

The basis for ensuring that the goals of the Green Deal and the Bauhaus Initiative are actually incorporated into the day-to-day implementation of projects in Europe is an open and quality-oriented award of planning services. The mandatory application of the best bidder principle (MEAT) for planning services must be anchored across Europe.

Architectural Design Competitions are a highly efficient instrument for achieving the New European Bauhaus goals: their broad use is a very effective way to collect a large number of innovative, sustainable, inclusive and aesthetic solutions in a well-documented holistic decision-making process. In addition, participatory processes ensure that the needs of users and the public are addressed and become part of the planning process. This optimizes planning solutions and leads to a stronger identification of the public and the users with their (built) environment. A considerable number of people per year can be reached and involved in sustainable planning processes by using Architectural Design Competitions as a quality procurement tool.

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Also, the targeted use of interdisciplinary Design Advisory Boards and expert consulting by planners increases the planning and building quality in communities.

## ***2 Buildings renovated in a spirit of circularity***

Priority is the maintenance of the building stock as the most important measure to conserve resources and avoid construction waste; deep renovation of the building stock; extension of the life span of buildings – supporting measures during the planning permission process and funding and other incentive measures should be put into place to support clients to follow these approaches.

When deconstruction is unavoidable in order to renovate buildings functionally, new techniques and processes have to be developed in order to recycle construction waste, but also to reuse elements or even introduce new building materials of higher quality (upcycling). The cooperation between expert appraisers and planners is a basic requirement for reintroducing existing construction elements and thus achieving a comprehensive recycling management. This requires the imagination and creativity of the planner on the one hand, and solid, technically reliable assessment and (re) certification on the other. Conventional planning and test procedures are not sufficient for reaching this objective. Through digitization and further development of existing technologies (sensor technology), decisive simplifications and accelerations could take place here.

Densification is a core issue, especially in rural areas, in agglomeration areas it must be applied with special diligence and concentration on brown lands.

Product development in the field of construction material must be done in a cooperation of producers, planners and the recycling industry and quality-assured secondary building materials are to be regarded as equivalent to CE-marked construction products and there the implementation of stimuli for their use is necessary.

To implement these goals, life-cycle planning and construction is required. There has to be a focus on these aspects in vocational training of Architects and Engineers and also in advanced training.

Sustainable, inclusive and aesthetic development of our living spaces in the spirit of circular economy and resource preservation is also closely related to (regional) craft culture. The strong progress of industrialization in this area must therefore be countered by measures that continue to enable and promote craft cooperation in the field of construction. Regional value chains must be sustainably strengthened through the involvement of the crafts (e.g., loam construction). The targeted expansion or development of regional building cluster structures (example WERKRAUM Bregenzerwald, Green Tech Cluster) leads to a future-oriented positioning within the European Economic Area.

Water-conscious urban development starts with the core areas of municipal services of public interest. In the course of necessary renewals of the infrastructures, forward-

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looking, resource- and water-conserving, multifunctional and efficient further developments and transformations are possible. Strengthening blue-green infrastructures enhances local water cycles.

### ***3 Solutions for the co-evolution of built environment and nature***

Increasing sustainability in local and regional spatial planning by enhancing consulting services by Spatial Planners and Architects for municipalities;

Concepts for reducing ground sealing, land use and land use change;

Further development of the concept of strategic environmental assessment in the direction of sustainability assessment (ecological, economic, social) and special features of building in touristic regions.

In the course of building densification, green and open spaces must be preserved and developed in such a way that ensures social fairness, high quality in “Baukultur” and more resistance to increasing usage requirements.

The basis for the planning of public space is the connection of green infrastructure with “Baukultur”. Sustainable approaches such as the sponge city principle in urban forestry not only result in better climate adaptation, but also have a major impact on people's quality of life. However, especially with the important implementation of the “Green Infrastructure” concept presented by the European Commission, there is often the risk of “greenwashing”, which must be countered with high-quality and independent planning.

### ***4 Interdisciplinary education models***

Better implementation of sustainability aspects in the training of Architects and Engineers;

Implementation of interdisciplinary continuing education offers in cooperation with planners, industry and crafts - examples:

- Horizon 2020 project 649925 'Setting up Qualification and Continuing Education and Training Scheme for Middle and Senior Level Professionals on Energy Efficiency and Use of Renewable Energy Sources in Buildings - ingREeS (2017/18);
- seminar series \_QUARTIERSENTWICKLUNG KLIMAFIT GESTALTEN by zt: FORUM Graz on sustainable district development in urban and rural areas;
- seminars by the ZT: academy such as ‘Greening of Buildings’, ‘The Sponge City Principle for City Trees’, ‘Building Integrated Photovoltaics’, ‘Planning with Daylight’
- postgraduate university course “Sustainable Construction”, operated by Graz and Vienna Universities of Technology (since 2010)



## ***5 Preserved and transformed cultural heritage***

Expansion and consistent implementation of the Federal and regional “Guidelines on Baukultur”;

Taking into account special features of the renovation of historical, identity-creating buildings (adaptation of building regulations with regard to safety of use, accessibility, energy efficiency, etc.);

In this context, too, the necessity and efficiency of the Architectural Design Competition as a method for collecting the best planning solutions that meet the goals of the New European Bauhaus has to be stressed. It is important to pursue quality-oriented renovation and transformation of cultural heritage and also implement other goals such as for example redensification in the settlement area.

Affordable housing in the form of social housing and workers' housing estates have a special historical significance in Austria.

## ***6 Modular, adaptable and mobile living solutions***

Development of solutions for temporary living with maximum variability, flexibility and low ecological footprint (low-cost concepts).

The pleasantly long lifespan of Europeans must increasingly be taken into account: Intergenerational living, senior living communities in connection with neighborly care and design of the living environment are ways to gradually improve the respective microclimate. Architecture and urban development for these relatively young challenges must be developed in close cooperation with the engineering sciences.