Dresden Nexus Conference/Interim workshop DNCi2021: Sustainability in Construction Only Possible through Collaboration

An inaugural regional interim workshop (DNCi) took place on 9 June 2021 as part of the international Dresden Nexus Conference (DNC) event series. Jointly organised by United Nations University (UNU-FLORES), the Leibniz Institute for Ecological and Spatial Development (IOER), and the Technische Universität Dresden (TU Dresden) invited participants, DNC regularly focuses on the Resource Nexus, i.e. the integrated management of water, soil, waste, energy, and other environmental resources. While the conference series is aimed at a global audience from science and practice, the new workshop format addresses actors from science, policy, and practice at the regional level to accelerate innovation processes in selected fields of action. The online workshop on 9 June focused on questions of sustainable building and housing.

Dresden, 11 June 2021. – With the title “Circular Value Creation for Building Stocks – Towards a Pioneering Role for Dresden and Saxony”, the interim workshop DNCi2021 on 9 June discussed the DNC2020 theme “Circular Economy in a Sustainable Society” in greater detail. The construction industry is facing radical change. On the one hand, buildings should meet the requirements of environmental and climate protection and consume fewer raw materials. On the other hand, housing should be affordable, and buildings should offer investment incentives. How can we achieve more sustainability in building under these circumstances? This question was the focus of the first DNCi workshop.

The aim of the regional event between two editions of the international conference was to anchor the topic of the circular economy in the building sector at the regional level and to bring relevant actors into conversation with each other. Dresden and Saxony are very well-positioned when it comes to research in the field of sustainable construction. Numerous practitioners are also involved in the topic of circular value creation in existing buildings. An exchange on current research results, ongoing projects, and possible future cooperation was therefore a central focus of the workshop, which was attended by more than 30 invited guests from science, administration, business, and civil society.

Whether it is 3D concrete printing, new building materials such as carbon concrete, or new forms of recycling construction materials – the range of technical innovations and research work on this is enormous in Dresden and Saxony. Likewise, universities and research institutions in the region are
working together with practitioners on information tools and procedures for modelling building stock. Both are indispensable on the planning and management side if the circular economy were to be realised in the building sector. A look beyond the regional horizon – for example, at research projects in the United Kingdom, Sweden, and the Netherlands – was also not forgotten at the DNCi2021 workshop. It became clear that preserving the value of building stocks is important for a holistic view that takes ecological, economic, and social concerns into account and that integrates climate protection, as well as energy and waste flows into a Resource Nexus approach. Despite clear requirements to achieve circularity in the construction industry, there are still many obstacles. A takeaway from the DNCi2021 workshop was that it is important to form alliances, tackle these obstacles together, and develop suitable solutions.

Many of the activities and projects presented are already based on close cooperation between various partners in the region. Further points of contact became clear and will be pursued in the follow-up to the event. Overall, the speakers at the DNCi2021 workshop agreed that if construction and building infrastructure in Saxony, Germany, and Europe are to become more sustainable, many different actors are needed to come together. In addition, all parts of the value chain in the building sector need to be addressed. Technical innovations and the digitalisation of information flows are just as important as a suitable political framework, more scope for sustainable construction in the public sector, sufficient funding for research in the field, and a pronounced awareness of the topic among the public. Coordinated by the organisers – UNU-FLORES, IOER, and TU Dresden – the aim is to promote further exchange beyond the event and further networking in the region. The topic could also be taken up again at DNC2022, the next international edition of the Dresden Nexus Conference in spring 2022.

Further information

Information on the international conference series Dresden Nexus Conference (DNC)
Selected contents of the eDNC2020 are available on the DNC YouTube channel
Link to the DNC Declaration
Subscribe to the DNC newsletter

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An Overview of the Organisers

United Nations University Institute on the Integrated Management of Material Fluxes and of Resources (UNU-FLORES)

UNU-FLORES develops strategies to resolve pressing issues in the sustainable use and integrated management of environmental resources such as water, soil, waste, energy, and other geo-resources that are of concern to the United Nations and its Member States – particularly in developing and emerging economies. Based in Dresden, Germany, the Institute engages in research, capacity development, postgraduate teaching, advanced training, and knowledge dissemination to advance the Resource Nexus. [https://flores.unu.edu/](https://flores.unu.edu/)

Leibniz Institute of Ecological Urban and Regional Development (IOER)

The Leibniz Institute of Ecological Urban and Regional Development (IOER) is a non-university research centre in the field of spatial sciences, and a member of the Leibniz Association. The subject of the IOER is the sustainable development and transformation of cities and regions in the context of the global human-ecological crisis. The aim is to foster environmentally just urban and regional transformations that enable humanity to thrive within a safe ecological operating space. [https://www.ioer.de/1/](https://www.ioer.de/1/)

Technische Universität Dresden (TU Dresden)

The Technische Universität Dresden (TU Dresden) is one of Germany’s eleven universities of excellence. Strong in research and considered first-class with respect to the range and quality of the study programmes it offers, it is also closely interconnected with culture, business, and society. The School of Civil and Environmental Engineering including the Faculties of Architecture, Civil Engineering Sciences, Environmental Sciences, Transportation and Traffic Science as well as Business and Economics, addresses diverse, interdisciplinary topics in research and teaching to create methods and technologies for sustainable developments. [https://tu-dresden.de/](https://tu-dresden.de/)

The three organisers are members of DRESDEN-concept – an alliance of research institutions from the world of science and culture resulting in the ideal way to communicate the excellence of research in Dresden. [www.dresden-concept.de](http://www.dresden-concept.de)