Circular economy redefines waste as resources. In a circular economy all products and services should be designed so as to optimize utility and economic value of resources while preventing or recycling waste. The economic and environmental potentials are great: It is estimated that an ambitious implementation of circular economy in the European Union would generate economic benefits worth 0,9 trillion Euro and save 50% of carbon emissions compared to other development scenarios.

In Denmark, 35% of all waste is related to the construction sector. A recent report argues that half the potentials of implementing circular economy can be realized in the construction and real estate sector. Danish architects have demonstrated how to increase value and reduce resource use and environmental impacts by using circular economy design principles, based on creating shared value and enabling resources to be reused for new purposes. Leading architectural firms Vandkunsten, 3XN and Lendager Group have demonstrated how design for disassembly, reuse and upcycling of materials can redefine the way we live, work and use our buildings in a life cycle perspective.

But while the design principles are clear, the challenge is to create new business models for the fragmented value chain of the construction sector. One of the big problems is that buildings last a very long time, but are typically financed with a much shorter return on investment period than the actual lifecycle of components and buildings themselves. We need to devise new value chains and business models for the construction sector that enables more investment in long term resource management. This is clear in the case of CIRCLE HOUSE that the offices are developing together.

But how do we get the fragmented value chains of the construction sector to collaborate on circular economy?

The workshop is hosted by the Danish Association of Architectural Firms, 3XN, Vandkunsten, Lendager Group, Algreen Arkitekter, The Royal Danish Academy of Fine Arts School of Architecture and the Aarhus School of Architecture.
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Presentation available at www.danskeark.dk