Wolfgang Wagener

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Connected Urban Development

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Wolfgang Wagener grew up in post-WWII Germany, and the Cold War was very much a part of his consciousness. The Berlin Wall was a real and physical boundary, and beyond the wall—things were different. For a curious child, someone who read everything he could get his hands on, the wall and what lay beyond it were an enigma, a puzzle that he strove to understand. Later in life, he would have the opportunity to help heal the rift between east and west.

Wagener studied architecture, which he believes is one of the broadest of academic disciplines because it incorporates design, engineering, art, history, and more. After graduation, he won a scholarship from the German Academic Exchange Service and went to the University of Southern California in Los Angeles, where he was exposed for the first time to American modernist architecture. Wagener immersed himself in studying American modernists, and eventually wrote the definitive book on Ralph Soriano, a mid-twentieth century architect practicing in Southern and Northern California. (The book is still in print, and remains the only book dedicated to this influential architect and his work.)

After a stint with the Chicago architectural firm of Murphy/Jahn, Wagener joined the prestigious firm of Lord Richard Rogers in London, and began working on the development of Potsdamer Platz. This was being constructed in an area of Berlin that had once been central, but had been largely destroyed during WWII, then bisected by the Berlin Wall. Aiding his country in its rebuilding after the fall of the Berlin Wall was deeply meaningful to Wagener. He also worked on major projects for clients such as Daimler Chrysler, Deutsche Telecom, Sony, and others, and advised the European Community on sustainable building design and urban development. As he puts it, “Being German,

green is in my DNA." Europe, and in particular Germany, were leaders in the green movement long before it became part of the global consciousness.

After several intense years working with Rogers' firm, Wagener became a visiting professor of Architecture at the University of Southern California and the University of California at Los Angeles. In addition to leading his own firm in Los Angeles, he taught architecture classes in the area of environmentally sustainable building and urban design, and innovation. His work brought him to the attention of Cisco, which needed someone steeped in green architecture to work on the firm's real estate planning and development in Europe, Middle East, and Africa. Wagener's design solutions enabled a number of innovations, including a 40 percent reduction in space requirements through strategic facilities planning.

When the demand for new buildings dropped off in the early years of the twenty-first century, Wagener saw that the world was in the midst of a great transformation, equal to the transformation that followed the introduction of electricity at the turn of the 20th century and the interstate highway system in the 1950s. "These new infrastructures changed urban life. City planning, and the way cities and buildings were designed and used—it all revolved around social, environmental, and economic innovation," he says. "Today, just as much of a transformation is taking place around the Internet. I began to wonder how this transformation would change the way we think about cities, buildings, and urban life." Desiring to be a part of the transformation, he became the founder of the Connected Real Estate Practice within Cisco Internet Business Solutions (IBSG). He drove Cisco's transformation towards collaborative workplaces, environmental sustainability, and connected real estate, both within the company and in working with Cisco's customers. He developed ways of reducing greenhouse gas emissions through more efficient use of office space, converged building networks, and "green ICT (information and communications technology)" programs, and demonstrated that techniques such as teleworking and workforce mobility could reduce greenhouse gas emissions as well as save money.

This work put Wagener directly in the spotlight when the time came to appoint a director for the new Sustainable Cities project in 2006. Cisco, in partnership with the Clinton Global Initiative, started an initiative called Connected Urban Development (CUD) to develop real-world solutions to the issues of climate change. Wagener works with CUD's member cities to develop pervasive urban broadband connectivity to reduce traffic congestion, make public transit more viable and useful to commuters, reduce the amount of commuting required, and reduce pollution and greenhouse gas emissions in urban areas. As buildings are among the most prolific sources of greenhouse gas emissions, Wagener's deep understanding of architecture and the way that buildings and human beings interact is essential to this work.

"Information and communication technology is the fourth utility," Wagener comments. When electricity was first introduced, electrical lines were placed in conduits on the outside walls of buildings. Eventually, electricity became a fundamental element of building design, contributing to buildings' functionality, comfort, and even aesthetics. In

the same manner, ICT must be incorporated into the fundamentals of design to bring a new human experience, intelligence and services into buildings and cities. “When you incorporate intelligence into a building,” says Wagener, “Now you have sense-and-respond capability. You can use one converged network to handle all the electrical, environmental, and ICT operations of the building to assure that energy is conserved, greenhouse gas emissions are minimized, and the building is a comfortable place for people to live and work.”

Wagener believes that, while the global climate change crisis is serious, his work in Sustainable Cities will make a difference. “The built environment represents more than 25 percent of the gross domestic product of the 35 most-developed countries in the world, and generates 80 percent of the world’s greenhouse gases. Sustainable Cities aims to establish a global benchmarking system for sustainable buildings, make recommendations to the Kyoto Protocol for the building sector, and develop policy tools for energy-efficient improvements in buildings and cities.

“This is an opportunity to apply the collective knowledge of Cisco, as an Internet company, to the design and development of the built environment towards the common good.”