Roy Buol will tell you that the theme of making Dubuque a more sustainable city was central to his successful run for mayor in 2005. He’ll tell you how much the issue resonated with the thousands of voters he spoke with in the course of knocking on thousands of doors. But one thing he won’t do is take top credit for Dubuque becoming the model of a sustainable midsize city that it is today. To Buol, that credit goes to the 60,000 citizens of Dubuque who worked to establish a unified vision of what sustainability means to them as a community. “My role was really to focus and channel a set of beliefs and priorities that was already there,” Buol explains. “The importance we place on preserving the quality of life we have—and on the resources we’ve always enjoyed—is part of who we are, and it’s something we’re determined to pass on to our children and grandchildren.”

Buol’s own life story, steeped in Midwestern traditions, made him an able messenger. Raised in his grandparents’ home, where he moved at a young age with his mother and six siblings, Buol planted, harvested and consumed his first corn crop—upon a few square feet in his grandparents’ backyard—at the age of six. Instilled with a strong work ethic, Buol went on to a 30-year career on the factory floor of farm equipment giant John Deere, and after that became head of grounds and landscaping at the University of Dubuque. While Buol’s green roots ran deep, it was the arrival of his own grandchildren that marked a true turning point in his thinking. “I became increasingly conscious of what we were leaving for future generations,” says Buol. “I saw sustainability not as an abstract principle, but a cause worth pursuing.”
The benefits of Dubuque’s Smarter City initiatives

- A 6.6 percent reduction in the average household’s water consumption and a significant increase in the rate of water leak detection
- Up to an 11 percent reduction in household electricity usage
- Ability to optimize transportation resources, schedules and policies, enabling better and more predictable service for consumers, more efficient utilization of Dubuque’s municipal bus fleet and maximization of ridership
- Encouragement of economic development by improving the quality of life, lowering energy costs and raising the city’s global profile as a smart city—which in turn helps to attract and retain human capital
- Catalytic impact at the community level on other sustainability initiatives, including environmental restoration and recycling
Leadership is:
Promoting bottom-up collaboration from the top

Mayor Buol recognized that, while his functioning as a catalyst to action was essential, the long-term prospects of “Sustainable Dubuque” required broad ownership across the entire community spectrum. “The secret to our success is diversity and inclusion—the fact that everyone has the opportunity to contribute,” says Buol.

Lesson learned:
Show businesses what’s in it for them

Realizing that support from businesses was indispensable, Mayor Buol and the city council consistently positioned sustainability not as an edict from above, but as a team effort—with businesses as a big beneficiary. “Historically, businesses are not one of the first to get on board, thinking it will represent a new expense,” Buol says. “Our message [to local businesses] was that they can improve their bottom line by doing things in a different way.”
Instrumented
Smart meters measured and transmitted water and electricity data for pilot households and a wide variety of other remote devices, including smart phones and RFID systems, currently help monitor transportation patterns across Dubuque.

Interconnected
Through a Web-based portal, pilot participants accessed real-time data about their water and electricity usage that helped them manage their household consumption.

Intelligent
Transportation planners use advanced analytics to optimize the city’s bus fleet and schedules based on underlying travel patterns; smart meters enable citizens to better manage water and electricity use.

City of Dubuque, Iowa: The parameters of a smarter city

Prosperity through sustainability
Program-specific metrics like these mark real progress in Dubuque’s drive to improve sustainability one step at a time. But even at this early stage, the initiative has begun to achieve the broad, strategic goals that will have perhaps the biggest impact on the city’s future. Chief among them is the growing perception of Dubuque as a fertile ground for economic development. To Buol, the solid support for Dubuque’s sustainability program across the business community represents the strongest endorsement of its impact on the city’s economic development. “Our businesses see the program as a way to improve their bottom line by doing things a different way,” says Buol. “The fact that it’s driven by the community as a whole—not as a [top-down] government mandate—was essential to gaining their early support for the program, and has made the business community its biggest supporter going forward.”

The business community outside Dubuque also took notice. In 2010, for instance, Forbes magazine ranked Dubuque first among midsize cities in the United States for projected job growth. Moody’s placed Dubuque within the top 2 percent of the largest 392 American companies in projected employment growth, while Fast Company placed Dubuque among the world’s top 10 “Smartest Cities on the Planet”—the only U.S. city granted that distinction.
Quality of life exerts a pull

Ultimately, the vitality of economic development—whether at the city, state or national level—hinges on attracting and retaining human capital, especially the educated, young professionals whose skills are in demand by companies seeking to grow. While no figures exist for Dubuque, Buol has seen abundant evidence that its progressive policies and programs are attracting many such people to put down roots in the city. “We’ve seen numerous examples of young people who have left Dubuque upon graduation from college, then came back and were dazzled by what they saw and decided to stay,” says Buol. “That, in turn, has led to an explosion of our arts and cultural scene, which has made Dubuque an even more attractive place to live. It’s a virtuous cycle based on the quality of life that comes from being a sustainable community.”

Buol’s own extended family represents a case in point. He cites the nationally recognized quality of life as a major factor in the decision of his own grown family members to stay in—and, in one case, move back to—the City of Dubuque. “It means a lot to my wife and me to be a part of the lives of our children and grandchildren,” Buol relates. “But it’s even more special to know they’ll grow up in a city that makes sustainability and livability a top priority. I’m proud to have had the opportunity to help make it that way.”