

## City



Located in the central part of Germany, Bad Hersfeld is a city rich in history, centered around monastic ruins from 769AD. Each summer, the annual Bad Hersfelder Festspiele theater festival is held, together with many concerts. In October Lullusfest, Germany's oldest folk festival is celebrated attracting over 500,000 visitors from across the world.

Bad Hersfeld is not just steeped in history, it is also considered one of the most progressive Smart Cities in Europe. In 2019, it was honored as the winner of the Quality of Life award from the Innovation in Politics Institute for its smart city initiatives, especially smart parking. With almost 30,000 full-time residents, a strong economy that is home to two of Amazon's central logistics centers, and scores of visitors each year, it's critical for the city to maintain streamlined traffic and parking management at all times.

## The Challenge

The city's age has made establishing smart infrastructure a challenge. The city experiences traffic congestion on a daily basis, so when special events brought in over half a million visitors, the situation could become a nightmare. Access to the city center is only possible via two entry points from an outer ring road, making it crucially important to guide visitors to the five outer parking garages when the centrally-located outdoor parking is full—thereby avoiding unnecessary traffic in the city center.

**Award-Winning Smart City reduced traffic congestion and emissions through a city-wide smart parking deployment.**

Traveling during busy times was challenging for drivers, as well as stressful for business owners and residents in the area. Frequent traffic jams, endless road noise, and the smell of exhaust polluting the historic central square were common complaints. As a result, city leaders needed to change how they handled traffic from both visitors and tourists. "There was a lot of stress and discomfort, and many times, shoppers and visitors were annoyed before they ever started their shopping experience in our town," Bad Hersfeld Mayor Thomas Fehling explains.

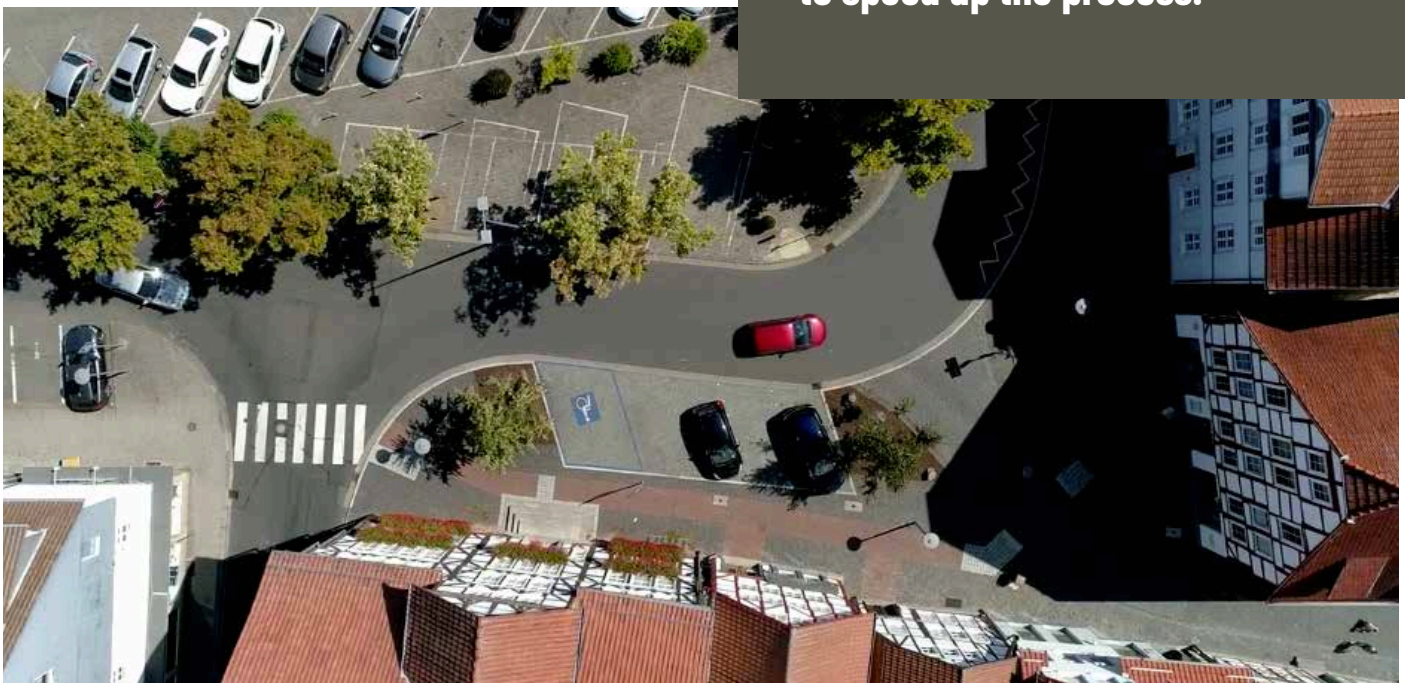


***“We want to provide drivers with a stress-free experience when they visit,”***  
**Thomas Fehling, Mayor of Bad Hersfeld.**

According to Fehling, ease of travel for the city’s residents and visitors is imperative. Customer service is critical, as happy drivers can increase tourism and local business revenue. And service begins the moment a person starts searching for a parking space. Fehling was determined to plan for a greater quality of life and greener future through strategic parking enhancements.

“We want to provide drivers with a stress-free experience when they visit,” he said. “Parking can be challenging during busy times, and with traffic flow in and out of the parking areas, there needed to be a way to guide cars quickly and efficiently to speed up the process.”

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## The Target

Fehling faced an uphill battle in addressing the city's parking challenges. The city had previously deployed an induction loop system in the ground at the entry and exit of the outdoor parking area which was supposed to identify how many spaces are free or occupied. However, Fehling said the technology "never really worked," and created problems for both the city's management and drivers themselves because of the disruptive installation and frequent maintenance issues due to incorrect counts.

Following an internal review, a team removed the in-ground loop systems in favor of an integrated, intelligent parking management solution from Cleverciti which enables per-space occupancy counting in real-time. The nature of an induction loop counting system is that errors accumulate over time, so that in a high turnover lot, by the middle of the day the system is completely inaccurate. Drivers in Bad Hersfeld ended up simply ignoring the old guidance system completely. With Cleverciti's approach, every occupied and unoccupied space is able to be counted at all times, so there is no possibility of cumulative errors, thereby ensuring accurate, reliable guidance at all times that builds trust with drivers.

### Decision makers wanted:

- 📶 **Combined occupancy data between the outdoor parking zone and the 5 parking garages to optimize traffic flow across and within the city**
- 📶 **an integrated end-to-end solution which minimized the operational efforts within the city's organization**
- 📶 **remote maintenance & operations capabilities to avoid the need for staff to visit the car park**
- 📶 **overhead parking occupancy detection to avoid damaging the parking surface and minimize installation costs**

## The Cleverciti Solution

Today, a visitor's arrival in Bad Hersfeld begins with parking information for 1,800 monitored spaces displayed on one of 20 Cleverciti-Signs deployed at all strategic decision points around the outer ring road. These all-digital signs unify data from parking garages, city lots, and on-street spaces. The signs update in real-time to guide visitors to park in garages outside the city center when the city center parking is full, or to follow the correct path to find the city center parking if space is available.

**Parking information for 1,800 monitored spaces displayed on one of 20 ClevercitiSigns**



### Special Guidance for EVs

P5	Parkgasse	14
P6	Parkgasse	12
	E-Tankstellen	2

As Bad Hersfeld expands its inventory of electric vehicle charging spaces, the parking guidance has been updated to guide visitors in need of charging to available EV spaces. Because the guidance signs are entirely digital, this sort of upgrade to the city's guidance system is possible with just a few clicks.



# ClevercitiSign<sup>®</sup>

## The Cleverciti Solution

Within the city center outdoor parking area, the ClevercitiCirc360 offers turn-by-turn guidance to the nearest open space. A low-profile, omnidirectional LED sign, the Circ360 mounts on existing infrastructure, fitting neatly into the existing streetscape. In addition to parking guidance, the Circ360 can display emergency notifications, critical citywide announcements, or information about events in the area. The displays are in use in the city's center, as well as at park-and-ride locations that serve commuters along the railway.



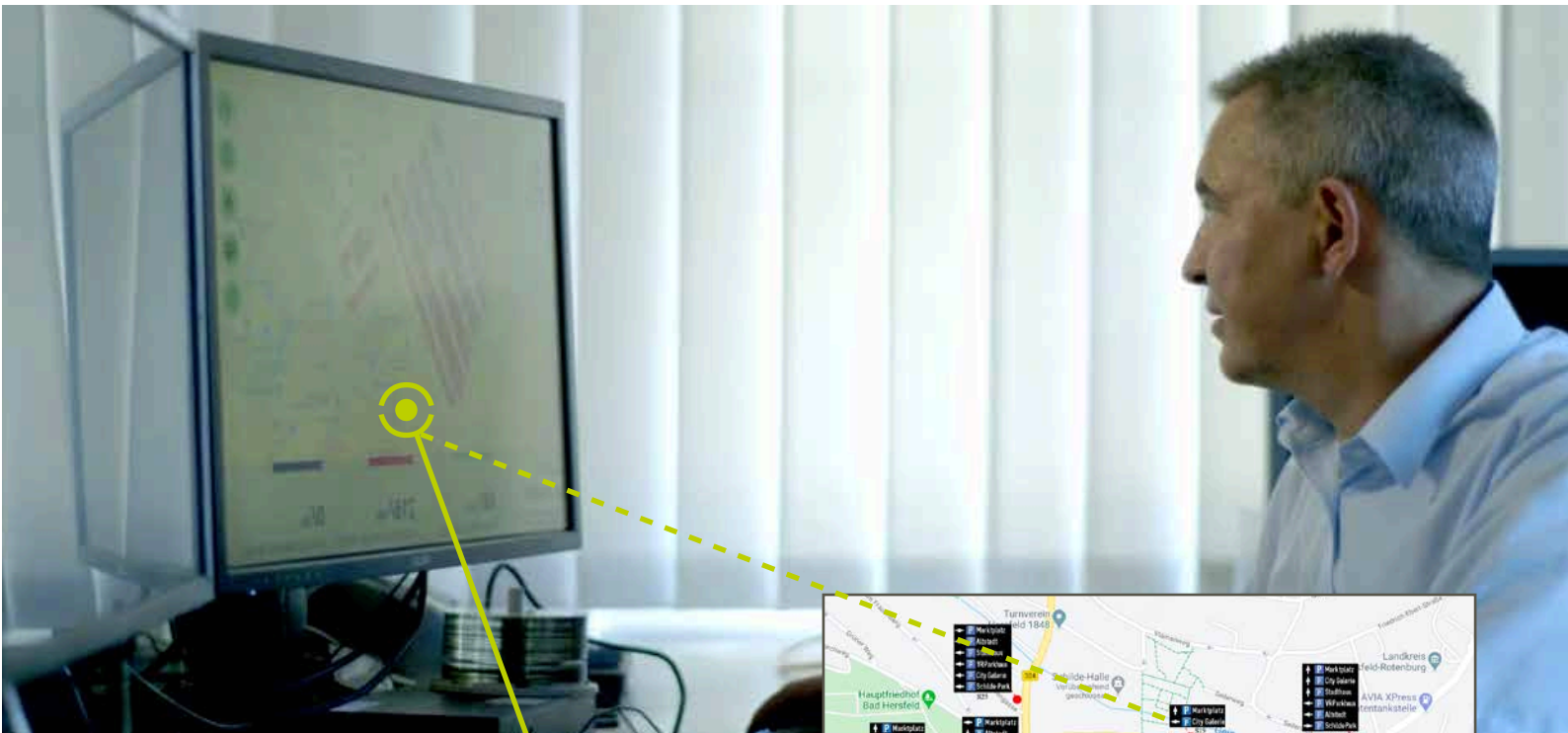
**ClevercitiCirc360**



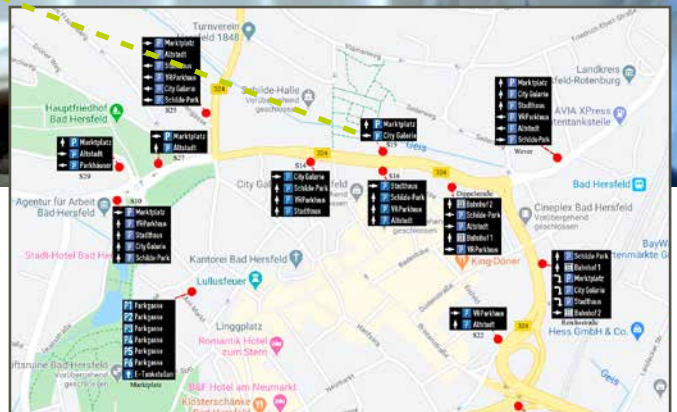
**ClevercitiSensor**

ClevercitiSensors are deployed to monitor the 575 outdoor parking spaces in the center of the city and park & rides, publishing real-time occupancy data to the guidance system, allowing signage to always be guiding the driver to the closest available space. Mounted on existing lampposts, the sensors are each able to accurately monitor up to 100 spaces in any weather condition or time of day, without the installation and maintenance challenges that the city had faced with their previous ground sensor solution.

**Monitor up to 100 spaces  
in any weather condition  
or time of day.**



## ClevercitiCockpit



## The Cleverciti Solution

A centralized management system, the ClevercitiCockpit, provides city officials and the parking department with full transparency to the parking situation at any given time. Valuable information such as length of stay and compliance with restricted and loading areas is constantly available. Historical analysis tools help city planners to optimize traffic flow in the future. And, the data are also published to city officials in a smart city dashboard that also integrates all other smart city technologies such as noise and air quality sensors. City leaders now have access to the data they need to make decisions and allocate resources to help streamline traffic flow, providing the best possible experience for residents, visitors, and local business owners.

*"Looking for a parking space is no longer based on luck and hope; it's based on proven data from Cleverciti," Fehling said. "Overall, we're very happy with the system. We've received excellent feedback from local retailers. Driver frustration has been reduced, which was the main goal of ours."*

*"Bad Hersfeld wanted to increase the quality of life for visitors coming into our city and for the people who call this home, and with the Cleverciti solution, we've accomplished this and continue to find ways to expand the solution to benefit drivers," he said. As a result of his commitment to delivering a better parking experience, Cleverciti delivered a solution that guides residents and visitors smoothly to free parking spaces in the city center to make it easier to shop and visit this thriving city.*