

RIETBERG LIGHTS THE WAY

In switching to using only LED lighting in its centre, a German town has breathed new life into a historic setting, while preserving its heritage.



A German town has successfully switched to using only LED lighting in its centre, while launching an innovative new night-time guidance system for visually impaired pedestrians.

The new lighting in Rietberg, a historic town in western Germany, has been used to illuminate the main shopping streets, landmarks and central road junctions, as well as the banks of the River Ems, which runs through the town. Pioneering paving blocks with integrated LED lighting elements have also been developed as part of the project, forming a strip of light at night, guiding pedestrians with visual impairments from one destination to another.

After a rigorous dialogue with residents, the Rietberg project was completed in July, funded by a two million Euro grant from the

German government, awarded to the town after it was successful in the 'Communities in a New Light' competition in 2010, which aimed to see environmentally friendly outdoor LED changeovers implemented across Germany. Rietberg follows Azabu no Oka, a new town in Japan, as one of the few places worldwide to use only LED lights outdoors.

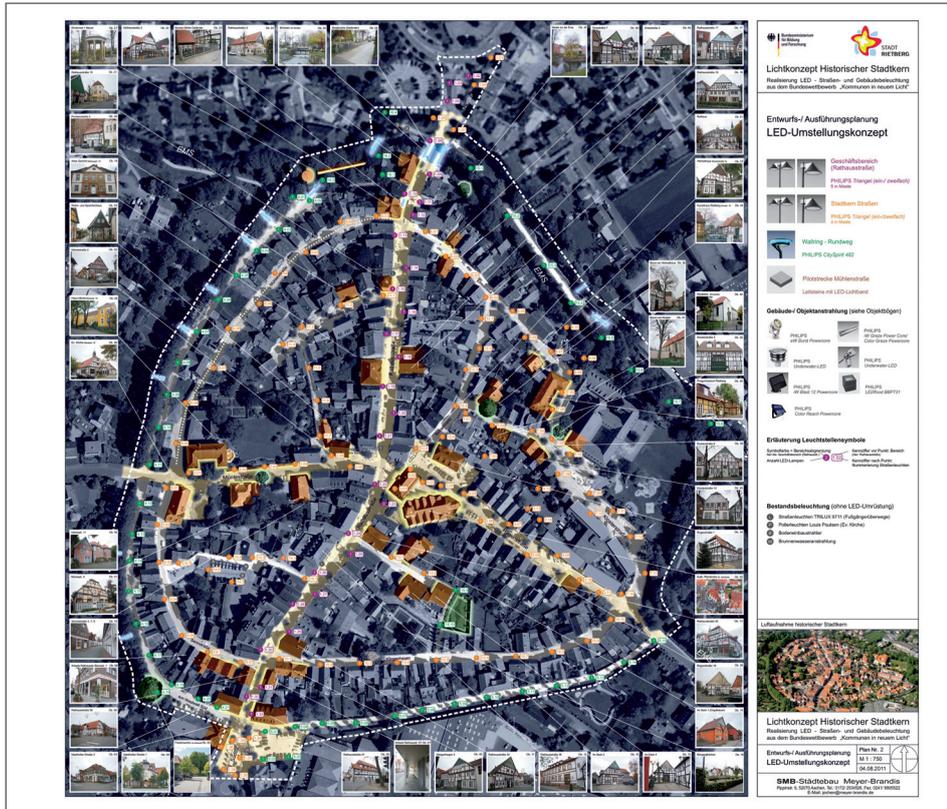
A founding member of the North Rhine-Westphalian study group, Reitberg, with its many wood-timbered 16th and 17th century houses and elegant squares, expects the sharpening of the town's image to attract people away from out-of-town shopping malls, in favour of experiencing Rietberg's historic ambience. Local landmarks have also benefited from the facelift including the town's ornate court house and the iconic chapel of St. John, attractions which

already draw many visitors.

The concept of firstly converting lighting in the middle of Rietberg and then working outwards, ensures that the elements which characterise the town's image are brought to the fore first, underlining the social, cultural and economic importance of a thriving town centre. It is expected that the lighting will boost the local economy, as well as increasing safety.

Andre Kuper, the retired Mayor of the area says Rietberg's aims were considerable when they embarked on the project. "Our intention was to set a further milestone of modern town development and climate policy."

Kuper continues, "Innovative LED lighting in a historic town centre is not imaginable for many people, but it is for us. Our competition submission can be evidence,



Left The Rietberg lighting plan sees LEDs used to illuminate 41 private houses with outstanding architecture. Local landmarks have also benefited such as the St. John's Chapel.

Below The pioneering LED guidance system for the visually impaired runs in front of the town hall.



for all towns with historically valuable assets, of the successful integration of energy-saving LED lighting into a historic ambience.”

Triangel and Cityspirit lights from Philips have been used in the changeover and floodlights have been installed to illuminate 41 private houses that are thought to best represent the town's architectural image. There is also a creative use of bridge and tree lighting in public spaces. The existing 168 lighting positions in the town were reused, with around fifty positions being added, further supplemented by 41 floodlights placed on private houses, as well as thirteen bridge illuminations and the LED guide for the visually impaired.

The failure of the lighting to match up to the DIN-EN 13201 specifications in places was previously criticised by the public, and in response the project has raised the quality of the lighting to DIN levels in the town centre. Linked to a network using the Powerline Communications CityTouch-System, the technology allows every light to be individually controlled and the level of the lighting to be adjusted to meet the

needs of the situation.

“The diversity of the innovative LED technology has been implemented holistically and in a representative way in Rietberg,” says Eva Schwenzfeier-Hellkamp, Professor Dr.-Ing at the FH Bielefeld University of Applied Sciences, “in various forms ranging from street lighting and facade illumination up to the light guiding installation.” She adds, “LED technology is making a major contribution to the European Energy and Climate Protection community.”

When combined with the planned dimming of the lights during off-peak times, the changeover will produce a near 50% saving on present energy consumption along with a reduction of CO₂ emissions by 29.3 tonnes a year, due to the LED's extremely long life and efficiency. Rietberg's commitment to environmentally sustainable projects has been considerable, the Rietberg Climate Park, built in 2011 as an information centre on climate change and climate adjustment, was created to compliment the UN's decade of “Education for sustainable development.”

The total cost of the LED project came to just under the two million Euros allotted. From this sum around €416,000 was spent on the conversion of the street and square lighting, €597,000 for building and structural illumination and the Rathausstrasse LED guidance system came to just under €300,000.

“What is enchanting about the old town of Rietberg during the day,” says Jochen Meyer-Brandis, a lighting designer and town planner at SMB Aachen who was involved in the project, “is that it maintains and enhances its charm even more in the hours of darkness.”

Residents hope Rietberg's LED transformation will allow the town to present its best face for years to come, successfully integrating an ultra modern lighting design within the confines of an ancient and fragile town centre, highlighting Rietberg's beauty while avoiding compromising the town's wealth of heritage.

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