MAKING TRAFFIC IN SCHIEDAM
SAFE AND SUSTAINABLE
WITH CONNECTED LIGHTING.

Schiedam, the Netherlands

Reference Project / Roadway Lighting

TVILIGHT
EMPOWERING INTELLIGENCE

gemeente
Schiedam

Project Information
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Intelligent streetlights on
Vlaardingerdijk in Schiedam

Application areas:
Roadway lighting

Location:
Schiedam, the Netherlands

Tvilight products:
CitySense, CityManager

Client:
Municipality of Schiedam

Adaptive roadway lighting results in a world of difference in Schiedam. Thanks to Tvilight connected lighting solution, the streetlights on the city's main roads adjust their brightness based on real-time traffic and human presence. This allows the Municipality to save lighting energy and make local traffic conditions more sustainable and safe.

Connected intelligent lighting for public roads

gemeente
Schiedam

The Vlaardingerdijk and Burgemeester Knappertlaan are one of the most important roads in Schiedam. Jointly, they serve as a major traffic artery, connecting Schiedam to the neighboring city Vlaardingen.

Although extremely busy during the day, the roads experience slower traffic during the night, with only a limited number of cars appearing on the route during the night hours.

Just as anywhere else in the city, efficient street lighting on these public roads is key to traffic safety. However, with little to no traffic during the night, it would not be reasonable to let the roadway lighting burn at full brightness all the time.

This reasoning motivated the municipality to look for an innovative yet highly reliable street lighting solution that would allow the city to save lighting energy while preserving traffic safety on two major city roads.
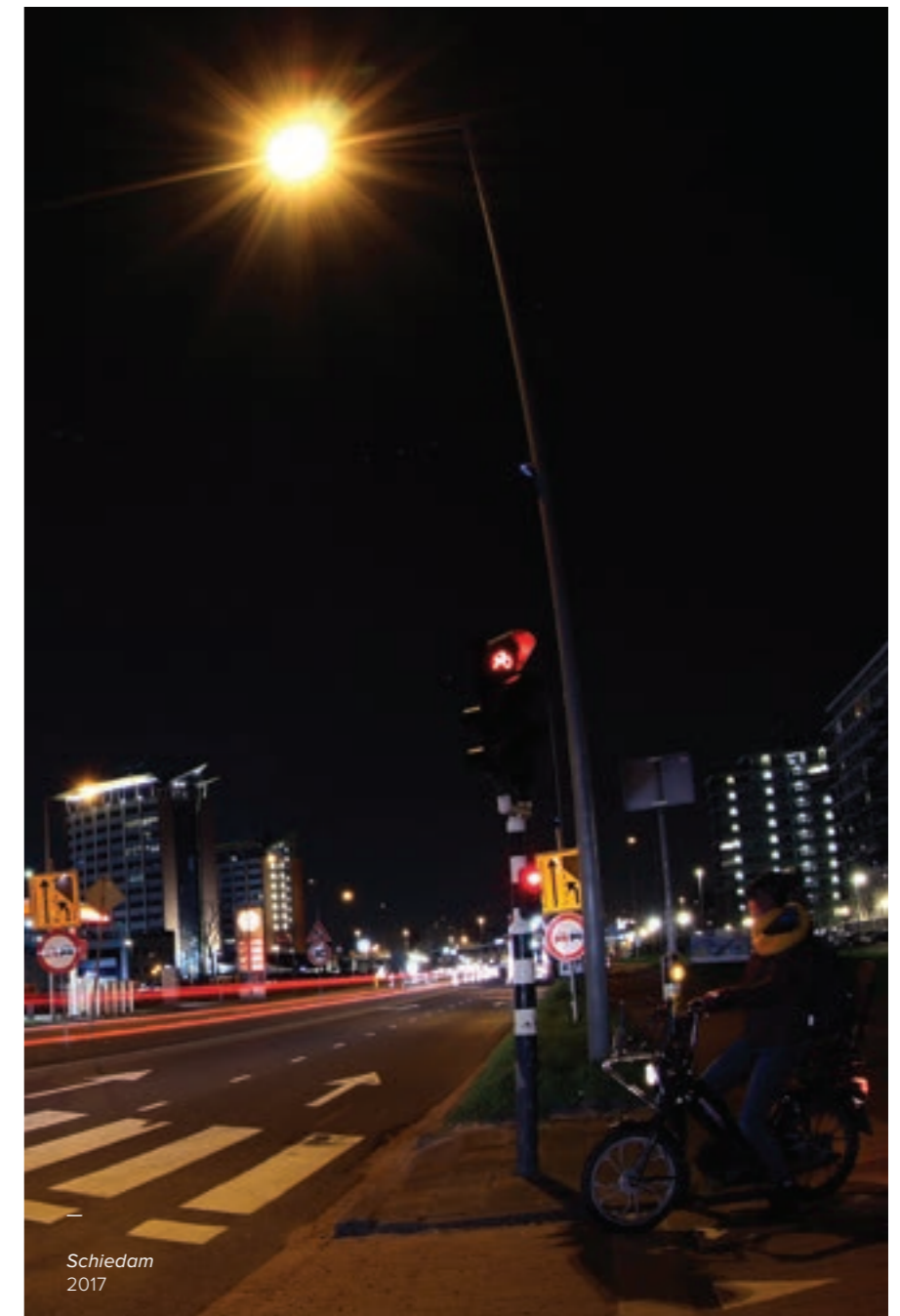
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Schiedam
2017

CUSTOMER PRIORITIES:

Energy savings and remote control

— The city chose Tvilight to save energy and benefit from total remote control of the lighting network.

Prior to the implementation of Tvilight technology, the street lighting on these two roads was characterized by several issues. The municipality was particularly dissatisfied with the high energy consumption of the conventional streetlights and the associated maintenance costs. Furthermore, the city had no way of controlling the street lighting infrastructure and didn't have sufficient insight into the status of the luminaires.

Martin Verhaal, who is responsible for public lighting, traffic, and parking systems at the Municipality, explains

" **We wanted to save energy and gain more control over our street lighting infrastructure. That's why we chose Tvilight intelligent street lighting technology for the city.** "

Municipality was familiar with the Tvilight solution because it had been utilizing it successfully in a different setting on another location in Schiedam. This positive experience convinced the Municipality to roll out intelligent street lighting controllers on the trunk roads.

SOLUTION:

Making the roadway lighting smart and sustainable with Tvilight

For the project, the city chose Tvilight's integrated wireless street lighting sensor CitySense. CitySense is a market-leading wireless street lighting controller with an integrated motion-based sensor.

The motion-sensing capabilities of Tvilight CitySense units currently have no alternatives on the market. The integrated sensors can reliably and accurately detect traffic in real time and adjust the brightness of streetlights accordingly.

Thus, on the roads, the streetlights are dimmed to 50% of their brightness capacity during the night hours (21:00 - 05:30).

Whenever the controllers detect a moving vehicle, the streetlight along the road brighten back up to 90%. The automatic brightness adjustment, known as "light on demand", allows the city to slash lighting energy consumption while maintaining the light levels that are required for a safe driving experience. With Tvilight, energy-efficient roadway lighting and traffic safety go hand-in-hand, while urban environment becomes more sustainable.

" Intelligent lighting allowed us to achieve precisely what we wanted: streets that are better illuminated, in an economical way. Smart streetlights are the future. "

Martin Verhaal summarizes: "The best thing about connected street lighting systems from Tvilight is that they are easy to commission and offer excellent remote monitoring options. Because of these advantages, we would definitely recommend the solution to other municipalities."

Complete remote control with
CityManager

Furthermore, the luminaires on the main roads are controlled remotely via CityManger control software. CityManager is a comprehensive online management platform designed to help municipalities analyze, monitor, and manage intelligent street lighting networks. This software enables cities like Schiedam to control each luminaire in the system remotely from a computer dashboard. Thanks to the intuitive, map-based user interface, managing connected streetlights is an easy and efficient process.

With CityManager, public lighting managers get an overview of all connected luminaires in the network as well as an insight into the status of each luminaire. CityManager also sends the municipality lighting-related notifications, which partly eliminates the on-site investigation and shortens the response time needed to fix the issue. The benefits of the software also include the ability to be responsive to the needs of the drivers, giving the city an option to easily change the street lighting profiles based on time schedule, traffic situation, season, special event, emergency situation and various citizen requests.
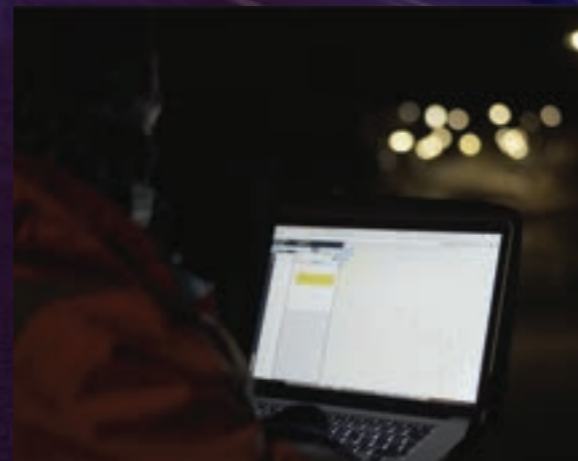
OPEN API MAKES TVILIGHT SOLUTION INTEROPERABLE & FUTURE-PROOF

Furthermore, with Tvilight best-in-class Open Application Programming Interface (API), the city can integrate various third-party software, sensors, and applications directly into the existing street lighting network. Tvilight has delivered a future-proof platform that makes Schiedam ready for technology developments in the field of Internet of Things and Smart Cities.