Dutch Railways | ProRail

Exceptional Energy Savings & Reduction In Light Pollution
with Tvilight's Adaptive Lighting Solution

Tvilight offered ProRail with its state-of-the-art, adaptive lighting solution, which includes lighting controllers with smart motion sensors capable of adjusting the brightness of lamps based on real-time human presence. Along with innovative smart lighting solution, Tvilight provided intuitive and feature-rich light management software, CityManager, which allows ProRail to collect useful statistics, including energy consumption/ savings and passenger activity insight, based on which, the railroad operator can create light profiles that match the illumination requirements of each particular station.

Tvilight's sensor-based adaptive lighting solutions and a smart, feature-rich light management software platform enables several train stations in the Netherlands, reduce energy consumption and lower light pollution, all while ensuring public safety.

> "We wanted to accomplish a few things, namely reducing energy consumption at the stations and lowering light pollution for people living in the area. At the same time, we wanted to ensure public safety. Tvilight's solution combined this beautifully".
>
> *Eelco Krakau, Contract Manager, Dutch Railways*

Reduced Energy Wastage

With the Tvilight's intelligent lighting solution, the lights automatically dim (to 40%) when no one is around. This enables significant energy savings and improves the lamp runtime

Green Railroad Stations

Intelligent connected lighting helps these stations reduce CO_2 emissions and curb light pollution, making them some of the most sustainable stations in Europe.

Improved Safety

As soon as any human presence is detected, Tvilight's smart lighting system triggers all the lights around the occupant to glow at full brightness. This makes the occupants feel safe and comfortable at all times.
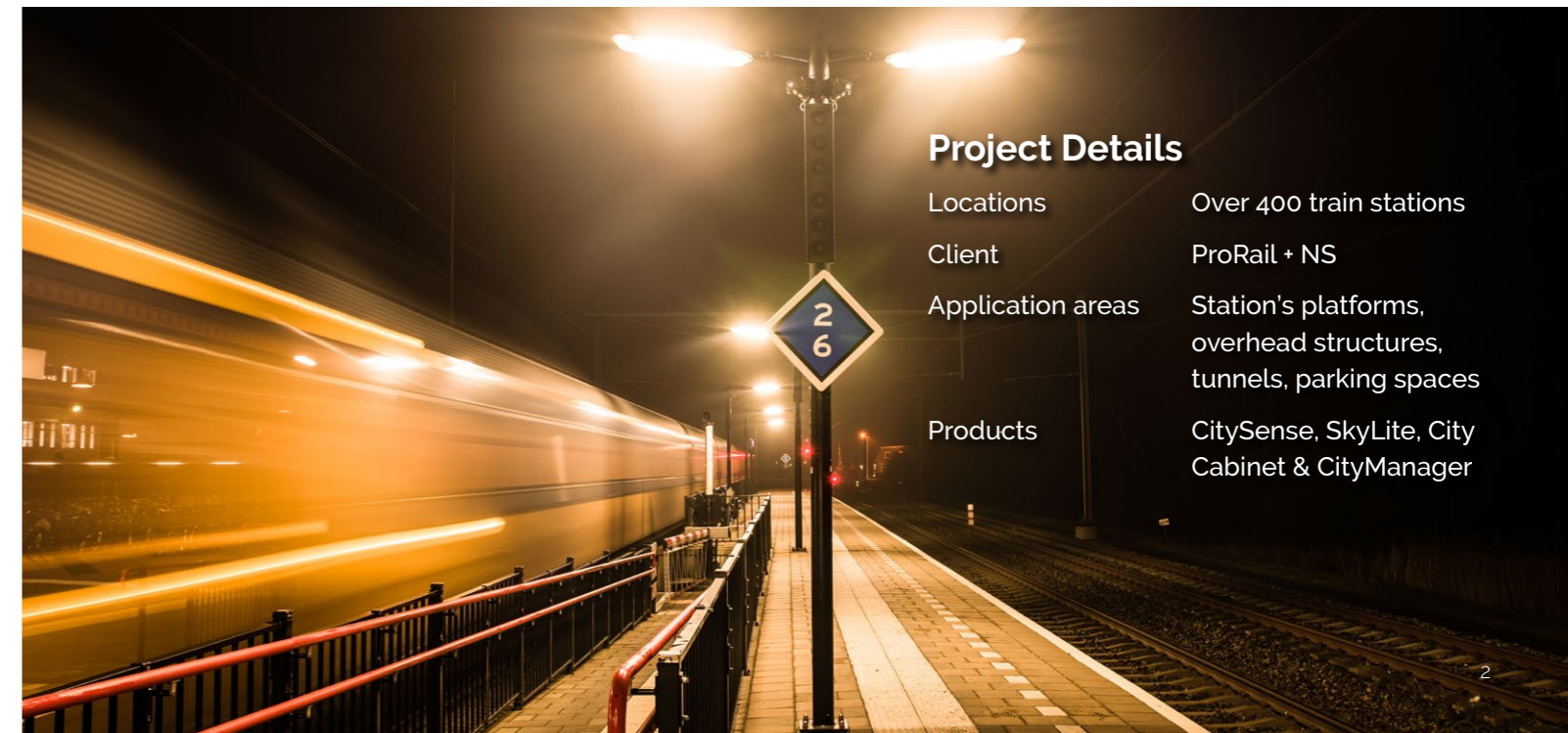
Complete Remote Control

Tvilight's smart lighting management software, CityManager, enables the Dutch Railways to monitor, manage and control its entire lighting infrastructure remotely.

Challenge

Majority of the Dutch railroad stations had a regular lighting infrastructure due to which the lights were fully lit throughout the night, even when they experience limited activity. Local residents also complained about the excessive light levels and suggested to turn off lights during off-peak hours. Turning off the lights would indeed reduce energy usage, but the resulting darkness would make the stations unsafe.

Solution

ProRail, the Dutch railway operator, wanted a solution that could reduce the energy consumption and curb light pollution, and at the same time, provide a sense of security to the passengers and railway personnel. The railway operator wanted an intelligent, motion sensor-based lighting system that would maintain the overall safety of the stations and improve the quality of life of the locals living in the vicinity by offering an adequate light only when necessary.

Project Details

Locations	Over 400 train stations
Client	ProRail + NS
Application areas	Station's platforms, overhead structures, tunnels, parking spaces
Products	CitySense, SkyLite, City Cabinet & CityManager