

Signify



The city of Düsseldorf relies on Interact
Intelligent lighting
and the smart city



“If we illuminate public spaces better and bring light to where it is actually needed, this directly increases the quality of stay and is a key factor in a smart city.”

Florian Fuchs
Smart City Expert,
Stadtwerke Düsseldorf AG

Introduction

The city of Düsseldorf wants to become carbon-neutral by 2035 and develop into a smart city. Because public lighting is of central importance for this initiative, the city is relying on the potential of Interact.

Customer needs

After the city of Düsseldorf had negotiated a new lighting contract, Stadtwerke Düsseldorf, the municipal energy supplier, searched – searched the market for technologies which would help them achieve their goals. The aim was to achieve demand-based lighting control in order to improve the quality of life and the quality of stay within the state capital on the one hand, and to significantly reduce the energy consumption and CO₂ footprint of the lighting on the other. Interact from Signify made this possible.

The solution

In close cooperation with Signify, Interact was initially tested as part of a pilot project on Düsseldorf's Fürstenwall. The technicians responsible were particularly impressed by the flexible individual luminaire control and the lighting quality of the networked Philips LumiStreet luminaires, which work seamlessly with Interact. The transition to Interact connected lighting began in 2022, with over 3,000 public light points networked so far. 50,000 luminaires are still using conventional technology and need to be upgraded. The city plans to renovate 3,000 light points per year to achieve their digitalization and climate goals by 2035.



[Düsseldorf case study video here](#)



Interact: Needs-based lighting that improves quality of life

Control each luminaire individually

The state capital Düsseldorf and utility Netzgesellschaft Düsseldorf have set themselves the goal of using public lighting only where and to the extent that it is actually needed. Prior to installing the new system, it was possible only to dim down entire streets in Düsseldorf, but Interact makes lighting control much more flexible. Each luminaire can be monitored and operated individually via the Interact dashboard.

Only as much light as necessary

Interact demand-based lighting offers several advantages that support the city's goals. Energy consumption and associated CO₂ emissions are significantly reduced without jeopardizing the safety of citizens by switching off light points. Because spill light is also reduced, people, flora, and fauna benefit.



Retrofitting made easy

The city of Düsseldorf relies on street lights from various manufacturers, and not every street light needs to be replaced. To ensure a seamless transition to Interact, the city is connecting existing street lights with the Outdoor Lighting Controller (OLC) from Signify. With the OLC, Düsseldorf can easily connect existing light points to the Interact system, bringing light points from multiple manufacturers into a single connected system with centralized control.

Flexibly expandable

If the city of Düsseldorf wants to expand its smart lighting system in the future, this is also possible. Thanks to open interfaces, Interact can be connected to smart sensors, for example, which are able to automatically adapt the lighting intensity to external influences.



Project details

- Interact was tested for two and a half years as part of a pilot project on the Fürstenwall
- Following a successful test phase, the technology is now being introduced throughout the city of Düsseldorf
- 3,000 public light points have already been added to the Interact system, with 50,000 more to follow
- As part of the conversion, all of Düsseldorf's switching points will be digitized and converted to Interact



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