PowerAiD™
For Smart Streetlights

DATA
DRIVEN
DYNAMIC
DIMMING
-as a Service

Widget Name
PowerAiD Demo - Herstedøstervej (DOLL)

Traffic Intensity % / Light Level %

Timestamp

Last 5 Minutes Traffic Count	Current Traffic Intensity
30	24.0 %

Max Traffic Count	Current Lighting Level
125	100 %

Power Savings
37.5%

FELICITY
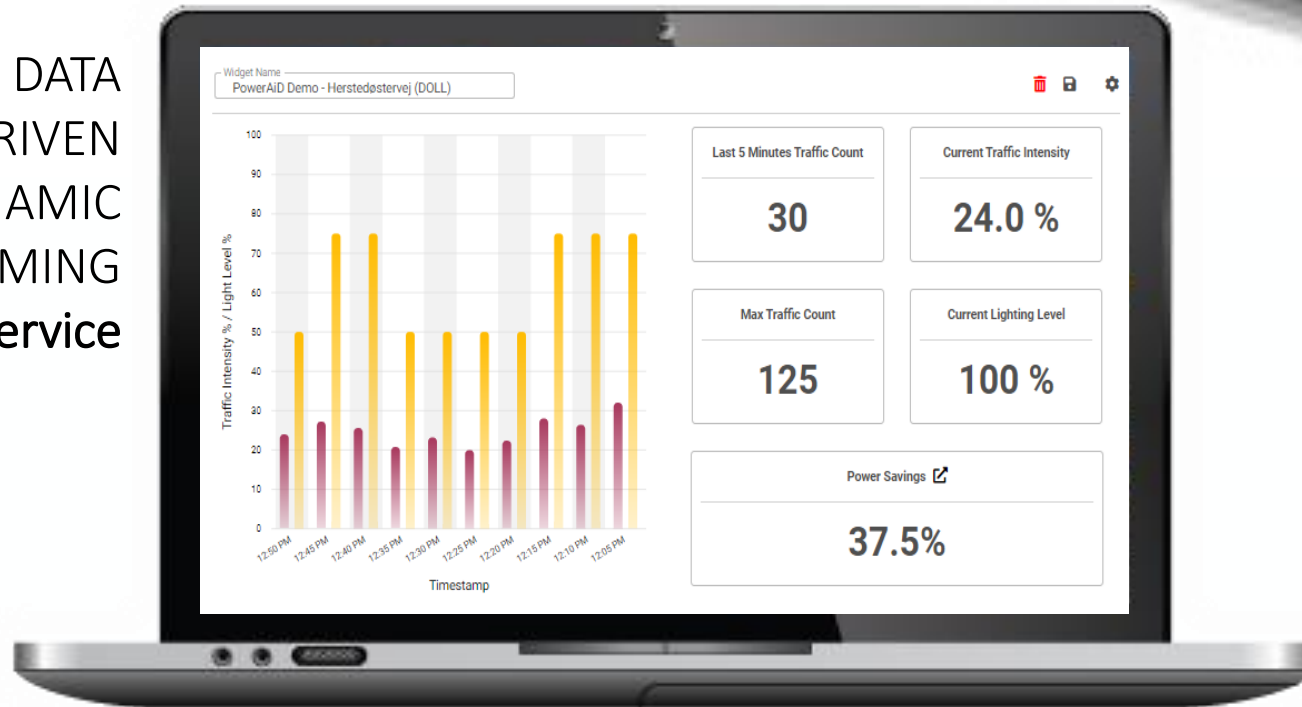
Patent pending **PowerAiD™** revolutionizes street lighting by dynamically dimming based on **live traffic data**, optimizing **energy savings** while ensuring **traffic safety**. Depending on location, traffic data from one sensor can represent 50-200 streetlights.
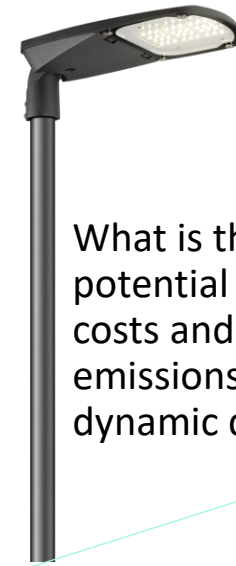
VIMALUX

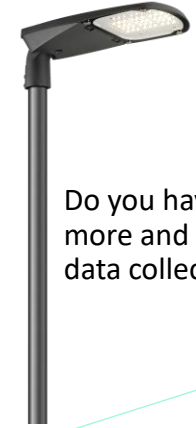# Make your Smart Streetlights "Traffic Smart" ?
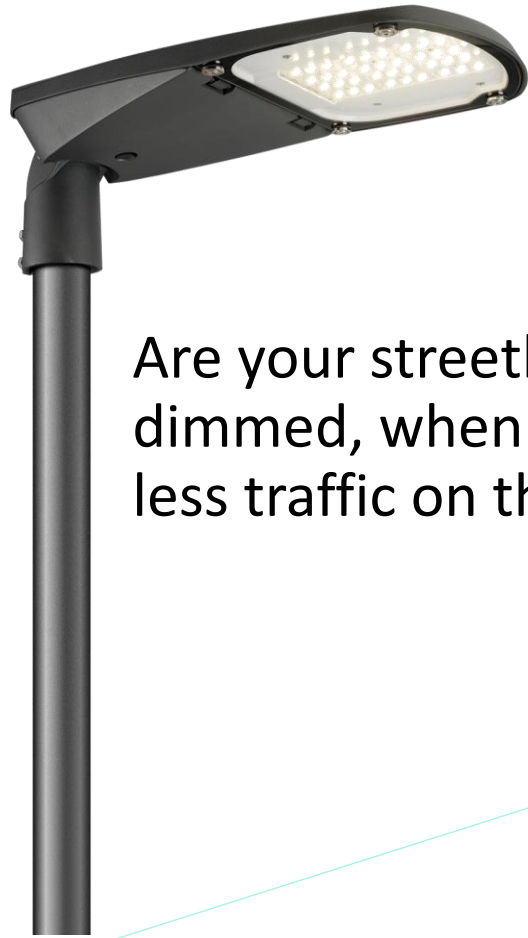
Are your streetlights dimmed, when there is less traffic on the road?
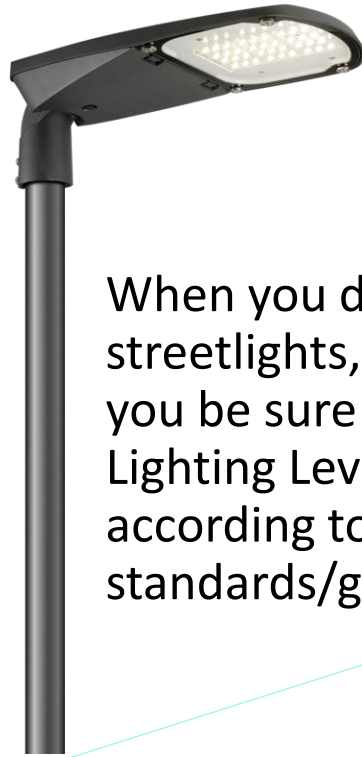
When you dim your streetlights, how can you be sure that Lighting Levels are according to standards/guidelines?

What is the reduction potential for energy costs and CO_2 emissions with traffic dynamic dimming?

Do you have a plan for more and better traffic data collection?

VIMALUX

PowerAiD^{TM} – Quick Intro

What is it?

PowerAiD™ is a service offering that provide dynamic/adaptive dimming capability to your smart streetlight network based on live traffic data.

Why is this cool?

PowerAiD™ create the optimal operational balance between energy reduction and traffic safety for LED Streetlights equipped with smart controls. In short, PowerAiD™ makes it safe to save energy.

How is it working?

With PowerAiD™, live anonymous traffic data is constantly collected at strategic locations on the road network using Computer Vision Ai sensors. The collected traffic data is processed and applied to standards based or custom defined dimming schemes that correlate Traffic Intensity Levels with required Lighting Levels.
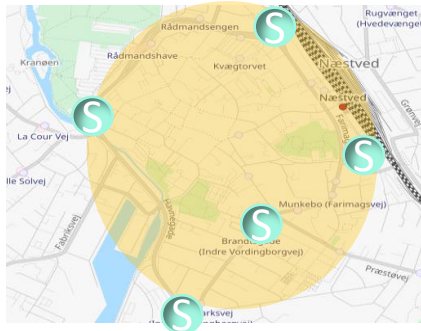
Where can I use it?

HIVE+ Traffic Sensors are installed in streetlight poles along large artery/main roads or intersections, where streetlight energy usage is high and traffic safety is essential. The dimming outputs are applied to relevant groups of streetlights. Depending on location, traffic data from one sensor can represent 50-200 streetlights.

Streetlight Operation Improvements

Cost	Safety	Emission
$	⚠	CO_2

PowerAiD™

Live Traffic Data

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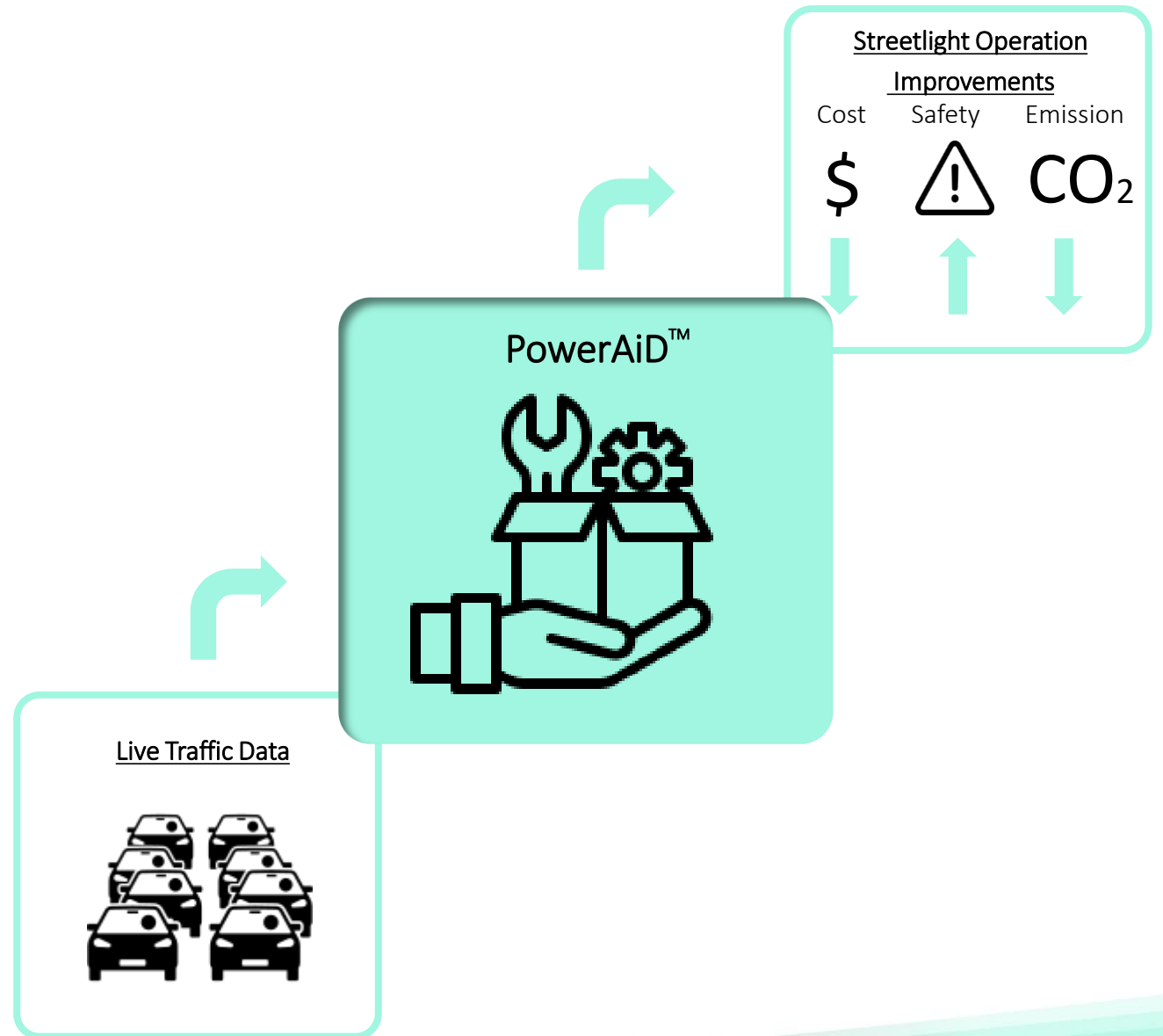
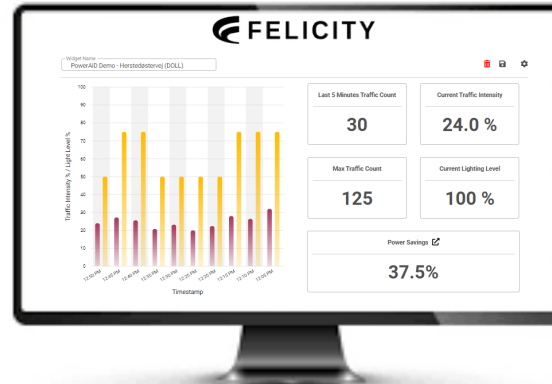**1** Live Traffic Data →

HIVE Traffic Sensors

A network of HIVE Traffic Sensors are installed in streetlight poles at strategic locations to provide live relevant traffic flow data on major artery roads and areas. Typically, one traffic sensor location, will represent 75-200 lighting points also known as a group

2 Dimming Commands →

Felicity Connect/PowerAiD

The relative traffic intensity is constantly monitored live in Felicity Connect. When predefined traffic intensity thresholds are crossed, a predefined corresponding dimming level command is generated and sent to the Smart Lighting platform for the assigned group of streetlights.

3 Command Execution and Result Monitoring →

Your Smart City/Lighting Platform
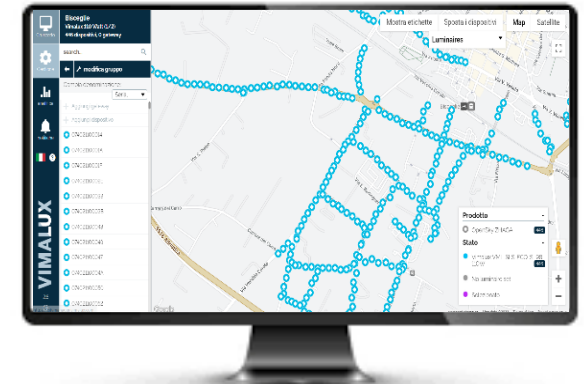
The received dimming up/down instructions are executed as they arrive from PowerAiD for the assigned streetlight groups.
The streetlight groups will now be dimmed up when there is traffic, and dimmed down when there is less traffic.
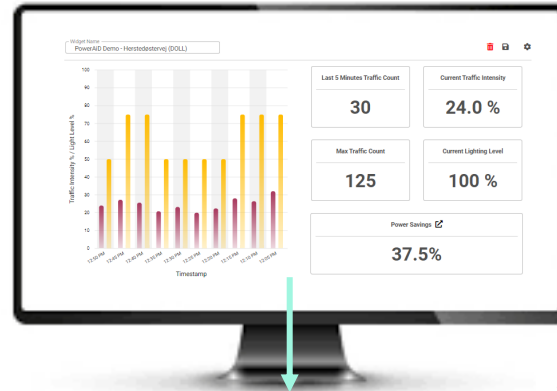
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PowerAiD^{TM} – Data flow

Hive Traffic Sensor

Felicity Connect: PowerAiD Widget

Your Smart Lighting Platform

"Group A" Streetlights

Groups, Dim Status

1 car passed just now
1 car passed just now
1 bus passed just now
1 truck passed just now
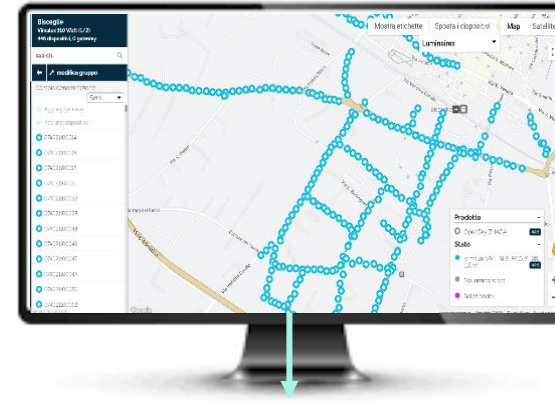.
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Assign streetlights: "Group A"

65 cars passed in the last 10 minutes

65 cars/10m is 45% of the
Traffic Intensity Max

For traffic intensity < 50% , dim lighting for
Group A by one Lighting Class (Ex: 25%)

Set lighting level
for Group A to 75%

Energy consumption and savings in
kWh for Group A

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PowerAiD^{TM} benefits for you

(click on web formular)

We will reply with an estimation for your potential savings

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