# EnLight – New way to communicate HD weather-data about the incoming weather hazards to citizens

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In the past decade, the traditional way citizens have been interacting with weather forecasts is by using online information. Apps or websites supply numerous graph-layouts that can be difficult for users to interpret. Along more frequent extreme-weather occurrences, improving weather communication and awareness to the public, at street level, becomes key to manage weather resiliency.

EnLIGHT strives to better integrate weather forecast information into our urban landscape, by making use of smart local weather-connected devices. With a proper network and data architecture, warnings from accurate weather-forecast API's can trigger smart-lighting or actions using mechanically-connected devices to help reduce weather disruptions at dedicated locations.

## PROJECT BACKGROUND
Weather data are currently not properly adapted for city scale and it is still very difficult to get properly informed about weather at street level resolution. SkyEcho, a young weather company in the Netherlands has developed ways to obtain true rainfall measurement, at scales 100 times more accurate than what is currently available on the market. With its pilot in the city of Rotterdam, SkyEcho is looking for ways to make use of these new hyperlocal information in cities, to improve the urban weather market and climate adaptation.

## PROJECT OBJECTIVE
Within EnLIGHT, we aim to create an innovative weather communication system prototype and MVP that better integrate hyperlocal weather-information into our urban landscape, and improve our weather awareness at current location. With a proper network and data architecture, specific instructions, based on user needs obtained from accurate weather-forecast API's will be connected to trigger smart lights or other mechanical connected devices in public areas, to notify citizens on approaching weather with the potential to improve weather-based decisions. In this project, our idea will be tested on hyperlocal rainfall data in the city of Rotterdam, using smart connected light technology as first connected device prototype.

## DATA
Hyperlocal rainfall data for the pilot project are derived from two advanced Doppler and fully polarimetric FMCW X-band radar systems deployed in the region of Rotterdam, the Netherlands, and located at 10 km from each other.

## APPLICATION
The main focus of the innovation is to target public weather awareness in public spaces. However, thanks to the expected reliability of the weather information, this innovation has a much broader application potential in the commercial and well-being sectors.