

## Small Demonstration Site: First Adaptive Lighting Test

112 luminaires, at end of March 2018, were equipped with Diademe technology for smart lighting in **ROMA, EUR district**. These devices are collecting data about luminance, traffic flow, air quality, noise level, temperature, pressure and pole inclination, providing adaptive lighting to the streets involved in the project.

A 15 days Testing, along Via dell'Aeronautica, was performed to evaluate how adaptive lighting system performs in urban environment and particularly to demonstrate that adaptive system is able to regulate lighting level on the base of real time traffic detection and luminance level.



**Adaptive lighting** data were compared with two different conditions: full light and pre-programmed cycle regulation. Full light is the standard regulation for ROMA EUR lighting fixture. Furthermore, street lights were regulated measuring real time luminance and traffic flow, providing however correct luminance level as prescribed by UNI 11248.

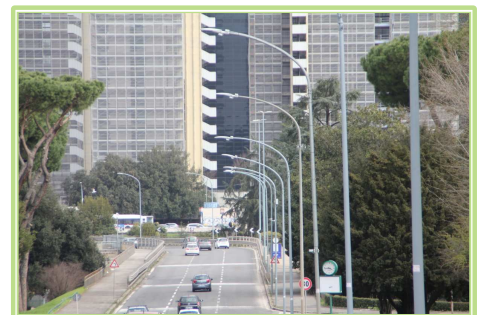
The conclusion of the Test was very encouraging. Energy saving through the Adaptive Lighting System, if compared with pre-regulated cycle, was higher than project target: 53% instead of 30%, while the performance was 66% if compared with full light driving, the current standard for ROMA EUR lighting plants.

In January 2019 other about 900 lighting points will be equipped with the Diademe System, as foreseen by the project targets.

## LIFE-Diademe Events 2019

January 2019

Installation of final Diademe Adaptive System on 900 Lighting Points in Rome



## Smart City Expo World Congress 2018



Smart City Expo World Congress opened its **8<sup>th</sup> edition the 13<sup>th</sup> November in Barcelona.**

The 3-day event is considered **the world greatest meeting point for cities and companies** working towards a better urban future. 21.300 Visitors, 844 Exhibitors from 146 Countries, 400 speakers are the number of the event of the year on Smart City and IoT. Cities, Regions and Countries from around the globe were on hand to share their smart city know-how and projects at stands and delegation points around the exhibition.

At the Life-DIADEME Stand our project experts were asked to explain the **innovative solution for adaptive street lighting**, economically efficient and designed to reduce energy consumption, pollution and management costs. Additionally, representatives from EU and non EU Cities and Associations offered and asked the possibility to establish collaborations on Smart City issues, particularly on public lighting. Dissemination activities were proposed in Cities from Israel, Sweden, Argentina, Estonia, China, Japan and many others.



## Life Diademe at the Renael Annual Assembly



RENAEL Annual Assembly, the Italian Network of Energy Agencies, on 27 September 2018, hosted at the ENEA premises in Rome (the National Agency for New Technologies, Energy and Sustainable Economic Development), a **Workshop on "Local Actions and Good Practices"**.

**Mr. Marco Trentini, Diademe expert from Reverberi Enetec**, main partner of AGIRE Energy Agency of the Province of Mantova in the Life-Diademe project, presented the **innovative solution on adaptive lighting for Smart Cities**. The Workshop was a fruitful opportunity for technical updating and confrontation on different solutions foreseen for facing urban environmental challenges.





## "ConEnergia". First Energy Festival in Mantova

Promoted by **AGIRE**, the **Energy Agency of the Province of Mantova**, within the project Fo.R.Agri., **ConEnergia Festival** wished to open a debate on **Energy Transition**, an attempt to facilitate the passage **from Linear to Circular economy**. With the support of the Municipality and the Province of Mantova and the Lombardy Region, the Festival foresaw a comprehensive programme: the organization of two Events during Festivaletteratura 2018, study activities and laboratories on the Ecological Footprint organized together with some secondary Schools in Mantova, a film festival and an International Congress.

**Mr. Marco Trentini, Diademe expert from Reverberi Enetec**, presented the innovative solution on adaptive lighting for Smart Cities on Saturday 21<sup>st</sup> April 2018 at the International Congress, in the wonderful location of the Bibiena Scientific Theatre in Mantova.



## Light and IoT for the City of the Future. Workshop in Rome

Light, in the digital era, plays new relevant roles within buildings or outside into the fabric of the city. Light creates different atmospheres in the city life improving the relationship with the environment. **Planning in the digital lighting era** means thinking light as a node of a more widespread system finalized **to improve the quality of life of the urban community** in accordance with the sustainability values in all the accepted meanings of the word: environmental, economic and social.



Organized by the **Architects Professional Association of the province of Rome** and supported by **AIDI, the National Lighting Association**, the **open debate on "Light and IoT for the City of the future"** was held in Rome the 14<sup>th</sup> November 2018.

Many speeches from Institutional representatives, but also best practices and examples from the professional world were able to open a confrontation on the possible design and development of the city of Rome.

**Marco Frascarolo**, Engineer, Lighting designer and Director of the Interdisciplinary Laboratory of Technical Physics and Technology, Architecture Department of **Roma Tre University**, besides coordinating the Event, introduced and presented the **Life-Diademe project: adaptive lighting as a solution for road safety and energy saving in cities**.



#### Diademe Partners:



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