



# Una manera de lacer Europa

Replacement of the old public lighting with LED luminaries in the neighbourhoods of Versalles and La Luz

**BUENAS PRÁCTICAS** 

**Actuaciones** Cofinanciadas

**Avilés City Council** 

Programa Operativo Plurirregional de España

Año 2022

Fondo Europeo de Desarrollo Regional

#### I.-DESCRIPTION AND BACKGROUND

## Good practice: Replacement of the old public lighting with LED luminaries in the neighbourhoods of Versalles and La Luz

The action described in this document consists on replacing the old luminaries in the Versalles and La Luz neighbourhoods, with VSAP technology and powers between 100 and 250W, by others with LED technology. In addition, the number of types and models has been simplified and unified.

640 luminaries have been changed in the Versalles neighbourhood and 643 in La Luz, in a total of 24 lighting installations, which represents an estimated reduction in installed power of 150kW.

Through this action, the quality of lighting is improved, which means:

• The reduction of dispersion and light pollution, thanks to the improvement of the Color Rendering Index (CRI) and the direction of the light beam.

• The reduction in energy consumption, since much lower powers are used, which results in lower CO2 emissions and lower energy costs.

• The drastic decrease in maintenance operations for luminaries, due to the long useful life of LED technologies. This reduces costs and also causes less inconvenience to the population of these areas





The action has had a total cost of  $\notin$ 450,800, of which 80% corresponds to the FEDER aid amounting to  $\notin$ 360,640, while the Avilés City Council has contributed  $\notin$ 90,160. It will have a direct impact on the population of the Versalles and La Luz neighbourhoods, which amounts to a total of 34,685 people (15,927 in La Luz and 18,785 in Versalles). In addition, it will also have repercussions on the rest of the city's population The budget for this work is  $\notin$ 450,800, of which the ERDF (European Regional Development Fund) is contributing  $\notin$ 360,640. The work will have a direct impact for Versalles and La Luz neighbourhood population: 18.785 and 15,927 inhabitants. It will also impact the rest of the citizens of Avilés both due to their use of the streets on which luminaries have been replaced as well as how this action affects positively to general finances of the municipality by saving money on maintenance.

#### **II.- COMPLIANCE OF "GOOD PRACTICE" CRITERIA**

The replacement of public lighting in the neighborhoods of Versalles and La Luz is considered a good practice because it follows all of the 7 defined criteria:

## <u>1. The role of the ERDF has been conveniently disseminated among the beneficiaries, potential beneficiaries, and the public in general.</u>

The communication of this action has been carried out through the following channels:

• News on media

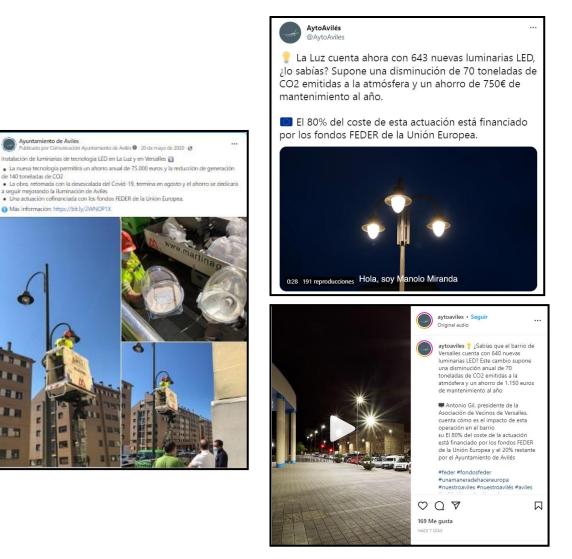


Information published on the 27th of July 2019 on La Nueva España



Published on the 11th of January 2020 on La Voz de Avilés

Avilés social media profiles: Facebook, Twitter e Instagram



• Short videos for social media

Available on the following links:

	Versalles	La Luz
Twitter	https://twitter.com/AytoAviles/status/16 07344430582726659	https://twitter.com/AytoAviles/statu s/1604463239160643585
Facebook	https://www.facebook.com/watch/?v=4	https://www.facebook.com/watch/?

	81207000787973	v=933428931351206
Instagram	https://www.instagram.com/reel/CoKO 0a6Ns-R/	https://www.instagram.com/reel/Co uTTlnLkzu/
Youtube	https://www.youtube.com/watch?v=7afl TuN6HtQ	https://www.youtube.com/watch?v= 7aflTuN6HtQ

• Local press ads (right) and regional press ads (left)





• Permanent plaques



#### 2.- The initiative incorporates innovative elements

The action is innovative because it incorporates LED technology into public lighting, which means a reduction in light pollution and CO2 emissions, as well as energy savings.

It also favours pedestrian circulation by providing a more pleasant environment which is a result of the improvement of the direction of the beam of light from the luminaries and the Color Rendering Index.

The reduction of maintenance for the new luminaries contributes to the better habitability of the neighbourhoods of La Luz and Versalles, by assuming fewer deficiencies in lighting and a reduction of interruptions in circulation to repair faults. Both circumstances lead to greater comfort for the daily activities of the population.

#### 3.- The results obtained are in line with the established objectives

The objectives of this action could be synthesized in the improvement of the quality of lighting in the neighbourhoods of Versalles and La Luz to offer a more satisfactory city experience to the population, while promoting sustainability both for the environment, through the reduction of CO2 emissions, as well as for the municipality finances, thanks to the savings that the change in technology entails and the lower maintenance that is associated with it.

Since its installation, it has been possible to verify the greater uniformity of public lighting in the area, which generates a sense of unity and continuity. The previous luminaries were very different on models, age and powers and they have now been unified into four basic types.

CO2 emissions have decreased by 140 tons per year and maintenance operations have gone from 38 and 25 interventions in Versalles and La Luz, respectively, in 2019-2020, to zero in both cases in the  $2020-2021^{1}$  period. This represents a saving of 1,150 euros in Versalles and 750 euros in La Luz. All of this significantly reduces the inconvenience caused to the population, both by breakdowns or poor lighting as well as by the occupation of the public thoroughfare for repairing or replacing luminaries.

#### 4.- It contributes to the resolution of a regional problem or weakness

The fact that most of both pedestrian and commercial traffic is concentrated on the downtown area of the city, added to the limited budget, sometimes causes maintenance efforts to be directed more to this location than to those that are more peripheral, as are Versalles and La Luz. This reality, in addition to causing inconvenience in the daily life of the people who inhabit these areas, contributes to creating the idea that they are less priority.

By replacing the old street lighting with LED technology in the Versalles and La Luz neighbourhoods, a drastic reduction in the need for maintenance has been achieved, which translates into a minimization of the inconveniences caused to the population and a greater availability of electricity municipal brigade to deal with breakdowns. In addition, choosing these areas as the first to modernize their lighting contributes to increasing equity between the different areas of the city.

#### 5.- It reaches a good portion of the target population

<sup>&</sup>lt;sup>1</sup> The works were completed in October 2020 in both neighborhoods, therefore the interventions of the second semester of 2019 and the first semester of 2020 are compared with those of the 2nd semester of 2020 and the first semester of 2021.

The action covers all the people who live in the neighbourhoods of Versalles and La Luz, which are 18,785 and 15,927, respectively. In addition, it affects the entire population of the city, which according to National Statistics Institute data for 2021 amounts to 76,874 inhabitants, since the socio-cultural, sports and commercial offer in both areas is not only intended for those who live in them but for everyone.

On the other hand, those who visit the city also benefit from the performance. According to data on visits to the Avilés Tourist Office, in 2021 there were 23,743 people.

#### <u>6.- Horizontal criteria of equal opportunities and environmental sustainability have been</u> taken into account

This project follows all selection as it solves problems, stimulates social cohesion and respects the principles of equality and sustainability.

The action applies sustainability criteria by influencing the reduction of light pollution and CO2 emissions. It pursues and achieves the values of non-discrimination and equality when applied in peripheral areas, traditionally more excluded. As a result, it equates the living conditions between the population of different areas of the city.

Finally, in the communication of the action, inclusive language is used at all times, choosing when it is possible generic words such as "citizenship, inhabitants, population".

#### 7.- Synergies with other policies or instruments of public involvement

The action "Replacement of the old public lighting by LED luminaries in the neighborhoods of Versalles and La Luz" is one of the operations included in the Sustainable Urban Development Strategy of Avilés that pursues the objective of "favoring the transition to a low economy in carbon in all sectors". Operations "Improvement of the energy efficiency of municipal buildings in the neighborhoods of Versalles and La Luz", "Installation of renewable energies in municipal buildings of the neighborhoods of Versalles and La Luz" and "Sustainable urban mobility plan and execution of improvement actions", have the same objective.

All of them are related since they pursue the reduction of the environmental impact of urban life by focusing on energy efficiency, the implementation of renewable energies and the promotion of cleaner mobility. In addition, they are complementary operations, since the improvement of public lighting has a positive impact on the state of public roads when using more sustainable means of transport (such as cycling). A more uniform and functional lighting, with fewer breakdowns and less need of repairs, generates a safer environment for the use of sustainable means of transport.

On the other hand, although the actions pursue different specific objectives, the improvement of lighting also has a positive impact on those operations that take place in the neighborhoods of Versalles and La Luz, since they improve the environment, thereby contributing to greater success of the actions. included in these operations. They are: "Recovery of Los Canapés and redevelopment of the surroundings", "Redevelopment of Calle del Carmen and reconditioning of the old schools of Alto del Vidriero", "Plan to revitalize trade in the neighborhoods of Versalles and La Luz", " Avilés 2020 Entrepreneurship Plan", "Advice and training program for young people through a local action plan for youth employment" and "Rehabilitation of teacher houses in La Luz neighbourhood".





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