













ERDF Programme 2021-2027 of the Community of Madrid

The ERDF Operational Programme 2021-2027 of the Community of Madrid was approved by the Implementing Decision of the European Commission on 07 December 2022, for an amount of ERDF assistance of **EUR 483 million** out of a total cost of EUR 1,208 million (co-financing rate of 40%). In this way, the ERDF Programme of the Community of Madrid will be able to co-finance the expenditure of the planned actions to be carried out in the eligibility period, from 1 January 2021 to 31 December 2029, in application of the so-called *n+2 rule*.

The key challenges to be faced by the Community of Madrid in the coming years through the ERDF Programme are the following:

- Promoting a more digital and competitive economy in the region, through the development of digitalisation in key sectors and the promotion of competitiveness and innovation in the business fabric.
- **Promoting a greener Madrid** by promoting energy efficiency and renewable energies, improving, and increasing resilience in water management and promoting biodiversity and green infrastructures.
- Encouraging greater urban mobility, promoting the transition to a zero net carbon economy.
- Improve training through actions in the Network of Employment Training Centres.

Through these Policy Objectives, the Community of Madrid will develop the following actions framed in **4 specific priorities (P)**, which in turn comprise 8 specific objectives (SO):

- La P1. A. Smart Digital Transition
- La P2. A. Green Transition

- La P2. B. Urban Mobility
- La P4. A. Social Transformation

## THE PARTICIPATION OF CANAL DE ISABEL II IN THE ERDF OPERATIONAL PROGRAMME 2021–2027 OF THE COMMUNITY OF MADRID

Canal de Isabel II, as executing agency and public company attached to the Regional Ministry of Environment, Housing and Agriculture, will receive funds through the ERDF Operational Programme 2021-2027 of the Community of Madrid. This will provisionally grant it an investment of **345.7 million euros** to be executed before 31 December 2027, with 40% aid, which means **138.3 million euros** of funding (more than 28% of the total funds allocated to our region).

Specifically, Canal de Isabel II will contribute to the specific priority **P2. A. Green Transition** and to the following specific objectives of the Community of Madrid:

- In **OE 2.2**, dedicated to the promotion of **renewable energies** in accordance with Directive (EU) 2018/2001, particularly the sustainability criteria detailed therein, actions will be carried out in the following area:
- Implementation of renewable energies in public services.
- In OE 2.5, dedicated to the promotion of access to water and sustainable water management, actions will be carried out in the following area:
  - Resilience and modernisation actions in the water distribution network.

With the grants, we will develop actions in our **RED Plan** for the modernisation of the distribution network and accelerate the start-up of our **Green Hydrogen Plant** at the **Arroyo Culebro WWTP in the Upper Middle Catch-**

ment Area. We will also carry out a series of actions in the future phase 3 of our Solar Plan and other renewable energy generation projects.

Specific objective	Planned actions	Investment	Subsidised amount
2.2- Promoting renewable energies in accordance with Directive (EU)2018/2001, in particular the sustainability criteria detailed therein	Generation of renewable energies	12,000,000	4,800,000
	Green Hydrogen Plant (green hydrogen generation)	18,329,177	7,331,671
	Solar Plan (photovoltaic power generation)	11,670,823	4,668,329
2.5- Promoting access to water and sustainable water management	RED Plan	303,669,295	121,467,718
TOTAL		345,669,295	138,267,718

## INDICATIVE TIMETABLE OF CALLS FOR APPLICATIONS

For the **specific objective 2.2.**, the following action has been selected as a potential operation of strategic importance (OIE): "**Biofactory: green hydrogen production project with reclaimed water and renewable energy**". It has been selected for its revolutionary nature, as it is committed to a new field of renewable energies through the use of state-of-the-art technologies that promote efficiency.

At our Arroyo Culebro Cuenca Media-Alta WWTP, located in Pinto (Madrid), we will **produce green hydrogen** from regenerated water by means of **electrolysis**. For this purpose, we **will use photo-voltaic solar panels** as a source of energy, which in the future can be combined with **biogas cogeneration** of from the use of waste from the WWTP itself.

We are currently working on a pilot hydrogen production facility, whose initial capacity will be around **30,000 kilograms of hydrogen per year**. Thanks to the tertiary treatment with reverse osmosis at the WWTP, we will be able to supply regenerated water, instead of drinking water, to cover the entire water demand required by the installed electrolyser. In July 2022 we will start generating photovoltaic renewable energy (515 MWh produced in 2022) and in 2023 work will start on the installation of the first electrolyser, with a capacity of 1 megawatt.

In addition, the oxygen produced during electrolysis will be used to reinforce the aeration/ventilation of the wastewater treated at the plant, thereby increasing the treatment capacity of the WWTP itself and improving the quality of the effluent.

Its implementation schedule is foreseen for the years 2023-2026.





On the other hand, for **specific objective 2.5**, the Community of Madrid will carry out **Resilience and Modernisation Actions in the Water Distribution Network**, which will allow us to significantly reduce leaks and increase the available resource. This will be done by replacing materials with obsolete technologies in the Community of Madrid's water supply, distribution and collection networks with others that comply with technical standards. In this way, an efficient use of water resources will be encouraged throughout the hydrological cycle, promoting water saving and reuse, with renovation and replacement work.

In addition, Canal de Isabel II will invest in the modernisation of the distribution network to reduce leaks and water losses and improve the overall resilience of the systems. In this way, it will be possible to guarantee the water supply to all the people of Madrid, ensuring their future growth and well-being, improving environmental management and achieving an improvement in the efficiency of this scarce resource.

It is worth mentioning that Canal's supply and supply network currently has a length of more than 17,700 km, with the distribution network having more than 14,600 km and the adduction network more than 3,000 km. Through the actions contained in this specific objective 2.5, the aim is to renew a maximum of 1,200 km, with an optimum rate of 300 km/year.

Likewise, the renewal of the network will reduce visible leaks (breaks), hidden leaks and background leaks (leaks with very low flow rates and undetectable by leak identification equipment). In short, an adequate network renewal is essential to ensure the resilience of the system and to favour adaptation to the consequences of climate change.

To this end, our **RED Plan**, currently underway (the first contracts were awarded in 2021 for a total of €350m), plans to renew the water supply network in 163 municipalities by 2025.









