Horizon 2020
INVESTMENT COMPONENT | MeHSIP-PPIF

# *Verification and Validation of the Adequacy and Efficiency of Exploitation of WWTP Projects*

## *Lebanon, Morocco and Tunisia*

## *Tunisia – Executive Summary*

MeHSIP-PPIF
*and*
Sustainable Water Integrated Management (SWIM) – Support Mechanism

European Investment Bank

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Sustainable Water Integrated Management – Support Mechanism (SWIM- SM)

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## Implementing Team

*The MeHSIP-PPIF project has been undertaken by a consortium led by Atkins, comprising LDK Consultants and Pescares.*

*SWIM-SM is being implemented by a Consortium led by LDK Consultants, consisting of ACWUA, RAED, DHV, GWP-MED, the Austrian Agency for the Environment, the Ministry of Agriculture of Tunisia, the Ministry of Energy and Water of Lebanon and the Ministry for the Environment, Energy and Climate Change of Greece.*

## Disclaimer

*The program is financed under the FEMIP Support Fund. This Fund utilises non-refundable aid granted by the European Commission. It is meant to support investments in the Southern Mediterranean countries as well as assisting promoters at various stages of the project cycle.*

*The authors assume full responsibility for the contents of this report. Opinions expressed herein do not necessarily reflect the view of the European Commission or of the European Investment Fund.*

## Executive Summary

The H2020 (Horizon 2020) initiative aims at reducing pollution sources of terrestrial origin in the area of the Mediterranean. The MeHSIP-PPIF program supports the "Investments" component of the H2020 Initiative, having made it possible to identify 94 investment projects in several countries, of a value of 7.07 billion Euro.

Featured in this report are the conclusions drawn from a mission carried out in Tunisia, at the Choutrana 2 Wastewater Treatment station located in the city of Tunis, ascribing the H2020 investments program. The purpose of that mission had been to determine the depollution impact of the investment, its overall efficiency and the lessons to be drawn.

The Choutrana 2 WWTP was developed in 2007 at an approximate cost of 200 m Euro (40 m in Tunisian Dinars), meant to cater to 333.000 PE (40.000 $m^3$/day). The facility was constructed next to the site of a pre-existing plant (Choutrana 1), of a treatment capacity for 950.000 inhabitants.

Today, the Choutrana 2 WWTP ensures a considerable volume of depollution, going up to 500.000 PE, although the original provision for this plant had been of 500.000 inhabitants. The plant is currently treating more than 16 tons of DBO5, 41 tons of DCO, 1.3 tons of nitrogen and 126 kg of phosphate per day. Tunisian norms in the matter of discharges are well abided by, with the exception of nitrogen and phosphorus (this WWTP's original design did not provide for the elimination of these particular substances).

Capital and operating costs of this WWTP seem rather low for a plant of such capacity. The WWTP employs but a limited number of staff, possibly in the light of its proximity to the Choutrana 1 plant.

One realizes that even at a cautious estimate as to the discharges in DBO5/inhabitant/day (60g) the Choutrana 2 WWTP might just as well soon attain its treatment capacity limits. Certain limits (e.g. hydraulic ones) have already been exceeded.