



**Sustainable Water
Integrated Management (SWIM) -
Support Mechanism**



Project funded by
the European Union

Water is too precious to waste

TWO DAYS TRAINING ON THE OPERATION AND MANAGEMENT OF WWTPS

9-10 September, Murcia

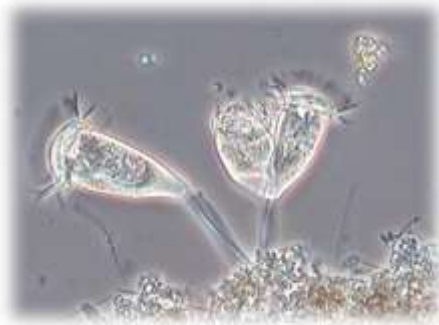
Entity for water treatment and sanitation of Murcia

Presented by: Pedro Simon Andreu

ESAMUR (Entidad de Saneamiento de la Región de Murcia)

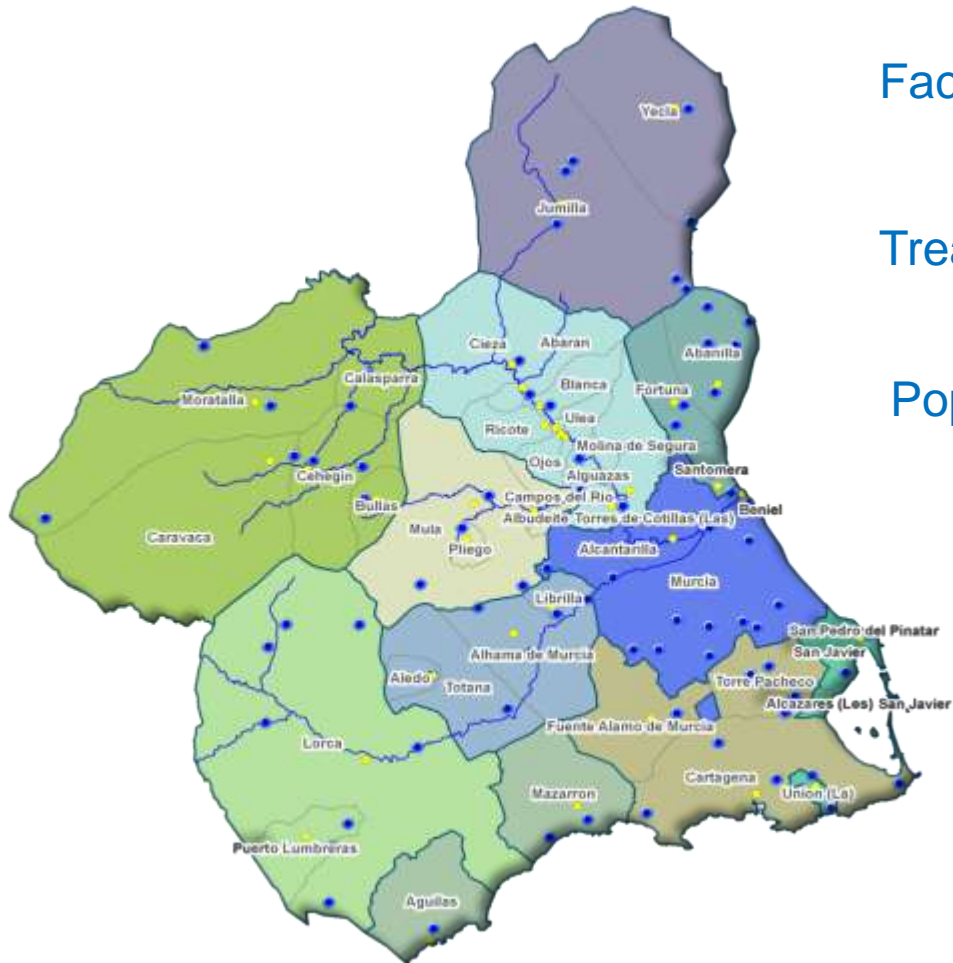
- Public Regional Entity created by Law 3/2000 of Sewerage and Wastewater Treatment and Implantation of Sewerage Tax
- Nonprofit Entity
- ESAMUR starts in 2002

Functions of ESAMUR



- Monitoring, operation and maintenance of municipal WWTP in the Region of Murcia

Functions of ESAMUR



Facilities : 88 WWTP + 46 Station Pumps

Treated Water 2012 : 109,4 Hm³

Population equivalent : 2,090,000

Functions of ESAMUR

- Options about the operation and maintenance of the facilities :
 1. Municipality transfer the management of WWTP to ESAMUR
 - Public tender to select a private company to operate the WWTP
 2. Municipality don't transfer the management of WWTP to ESAMUR
 - Every year there is a negotiation to set the cost of the operation and maintenance of WWTP

In both options ESAMUR controls treated water quality and the operation and maintenance of WWTP and pays according to the contract or negotiation

Functions of ESAMUR

ESAMUR :

- is in charge of collection and administration of the tax “ canon de saneamiento “
- proposes the tariff of the “canon” every year for passing by law
- inspects “canon” collection

Functions of ESAMUR

Benizar (400 m³/d)



Cañada de Gallego (1000 m³/d)

El Escobar
(30 m³/d)



Macisvenda
(110 m³/d)



Construction of WWTP

Functions of ESAMUR



Before



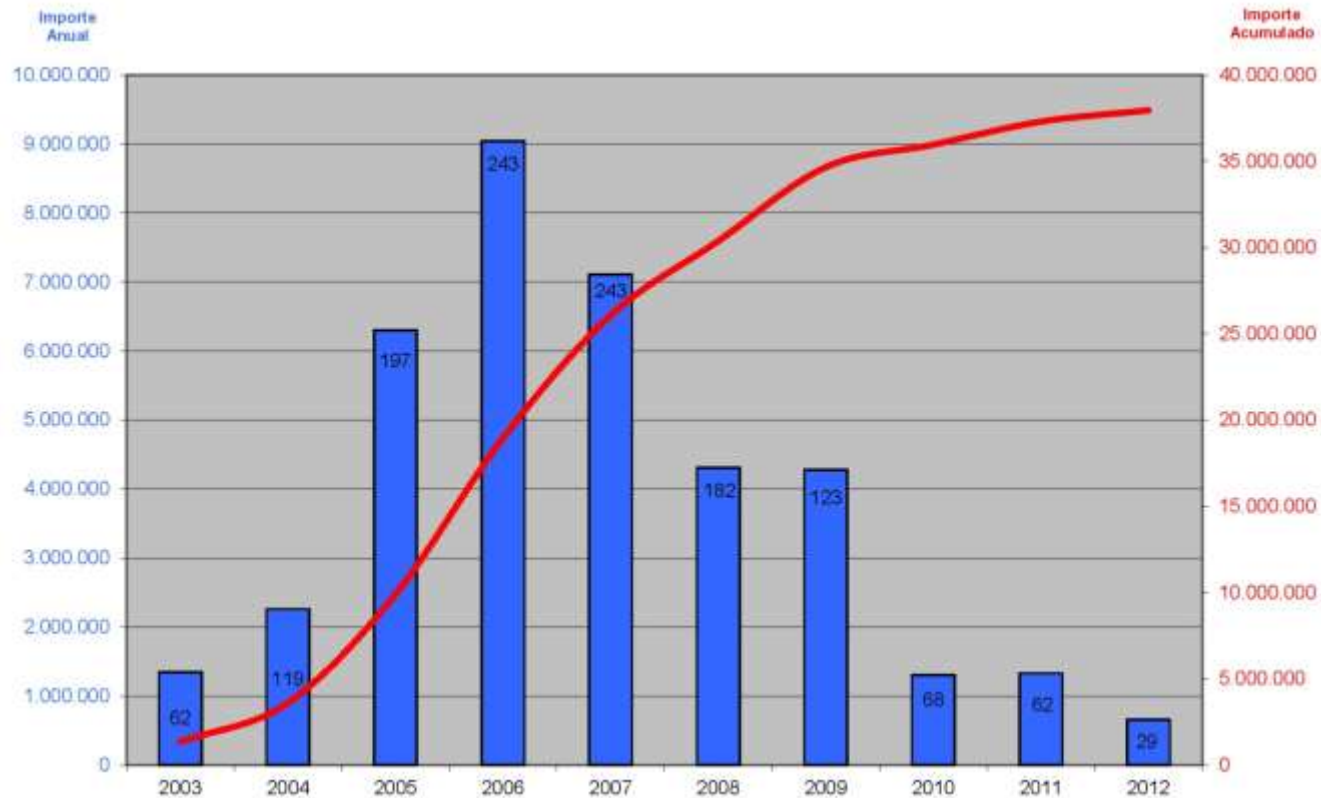
After



Upgrading of WWTP

Functions of ESAMUR

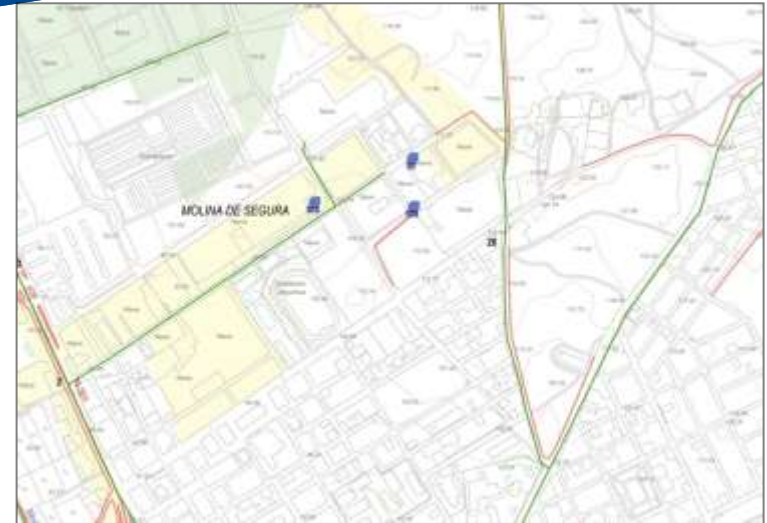
Annual
Investment



Accumulated
Investment

Investments of ESAMUR in small WWTP building, rehabilitating and upgrading

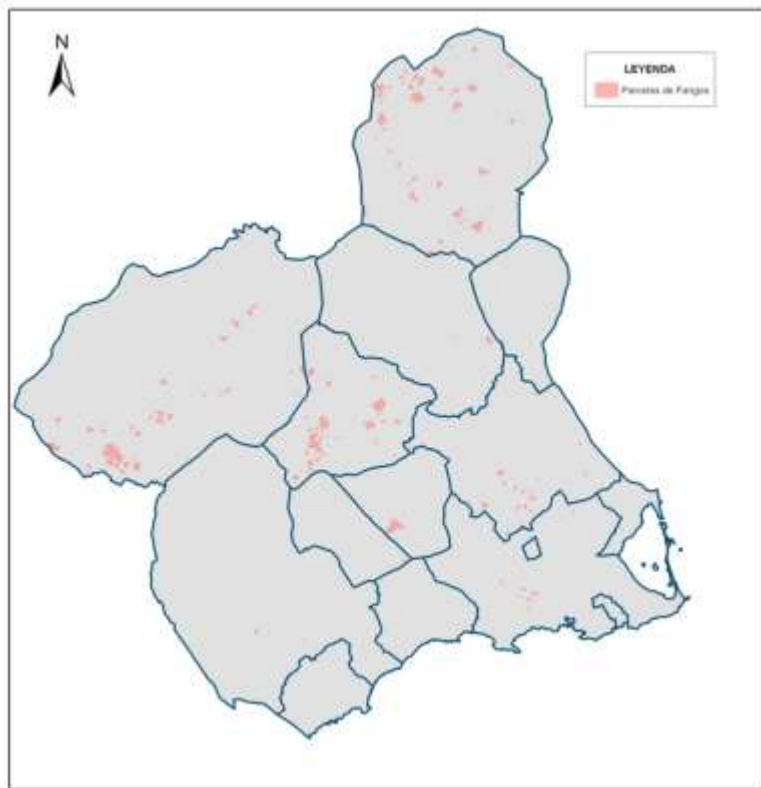
Functions of ESAMUR



Industrial waste control

Propiedades Establecimientos - Molina de Segura	General	Atributos
Nombre		88
establecimiento		88
chuesto		377
a		056062
r		4215333
Cofuncioncodeofitaku		
id		17
establecimiento2		306
chuesto1		377
razon		JAKE S.A.
establecimiento_0m		CTRA. MAJRID-CARTAGENA, KM 301
MUNICIPIO		MOLINA DE SEGURA
cp		30600
tel		96843363
DIAE		04-15-04
descripcion		Industria del cacao, chocolate y confiteria
pcor		056062
pcor_1		4215333
total_1		0
total_2		17374
total_a		17374
total_b		6574
total_0m		3000
riv		0.93
cc		9
obed		387
tecnologia		30/01/2004 0:00:00
SS		669
DIGI		13541
Nº		25
P		0.56
Sol		1125
chost		0500
ph		6.5

Functions of ESAMUR



Control of sludge application



Functions of ESAMUR

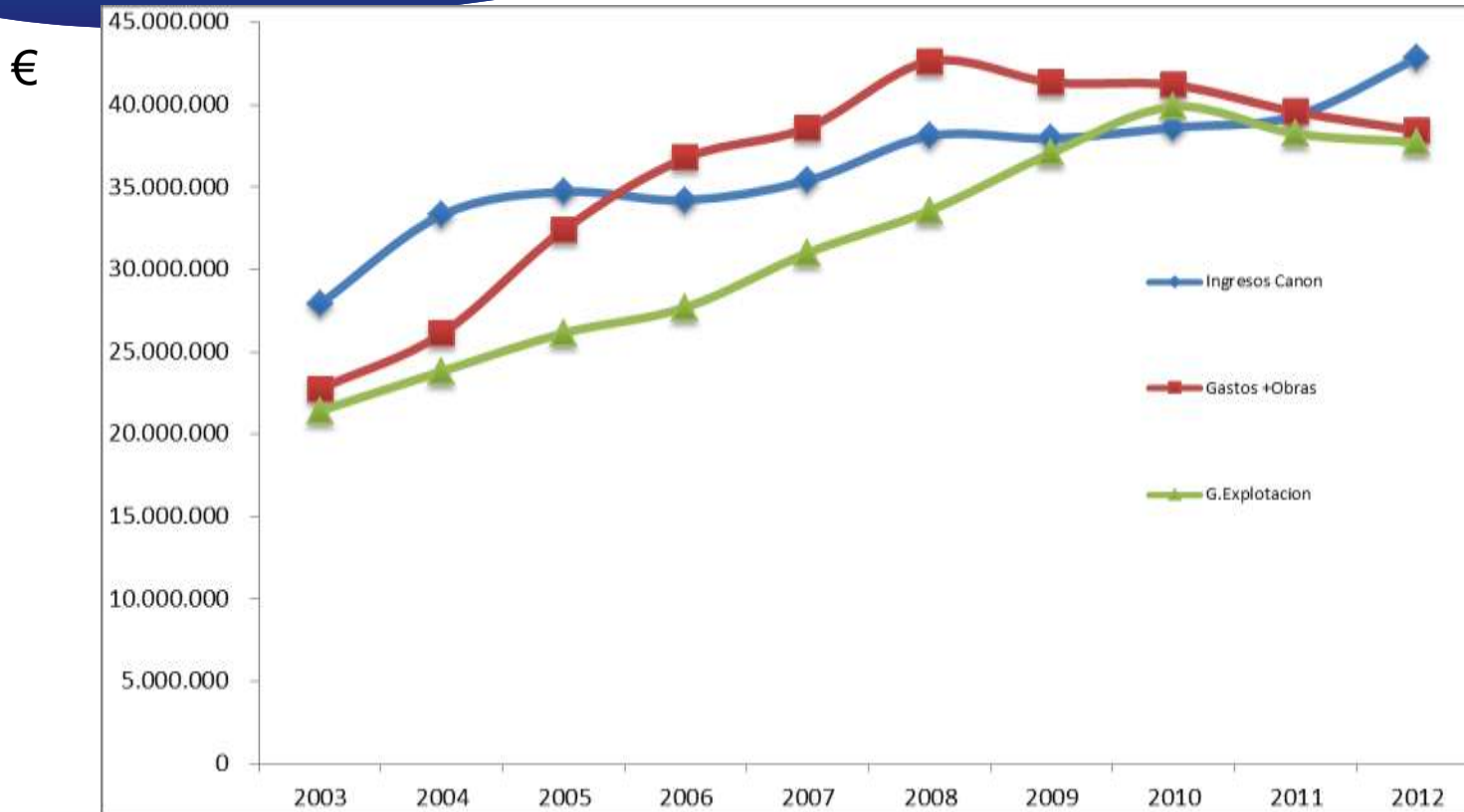


Analytical control in 2012

- 3.758 water analysis
- 1.658 sludge analysis
- 3.700 process analysis

Analytical control

Functions of ESAMUR



Year

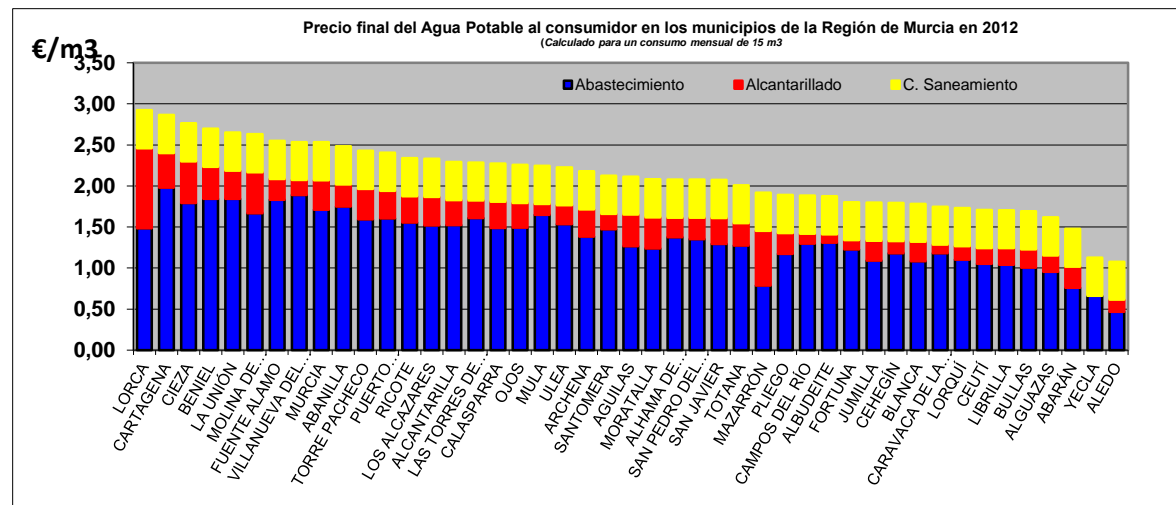
- Canon Income
- O & M + Investment
- O & M

Functions of ESAMUR

Tax Price Evolution

	2002	2004	2006	2008	2011	2012	2013
Domestic							
Fixed rate (€/supply/year)	24	25,7	26,7	27,9	30	32	33
Variable rate (€/m3)	0,2	0,21	0,22	0,23	0,25	0,27	0,28
Industrial							
Fixed rate (€/supply/year)							35
Variable rate (€/m3)	0,27	0,29	0,3	0,32	0,34	0,37	0,38

Functions of ESAMUR



Total water price in Murcia Region municipalities

Major problems in the beginning :

- Political confrontation
- Water supply companies contracted or concessionaires by local governments
- Social response for a new tax
- Management system of the tax. Choose correctly the first tariff
- Find WWTP in bad conditions
- Uncontrolled industrial discharges

Advantages of this management model

- Specialized entity about WWTP and reuse
- To share enhancements between plants
- Economy of scale in operation of WWTP
- Interchanges of equipments between plants
- Tariff is out of the local governments and it's the same for the whole region

مع خالص شكري
وامتناني

Thank you
for your attention

Merci pour
votre attention



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