



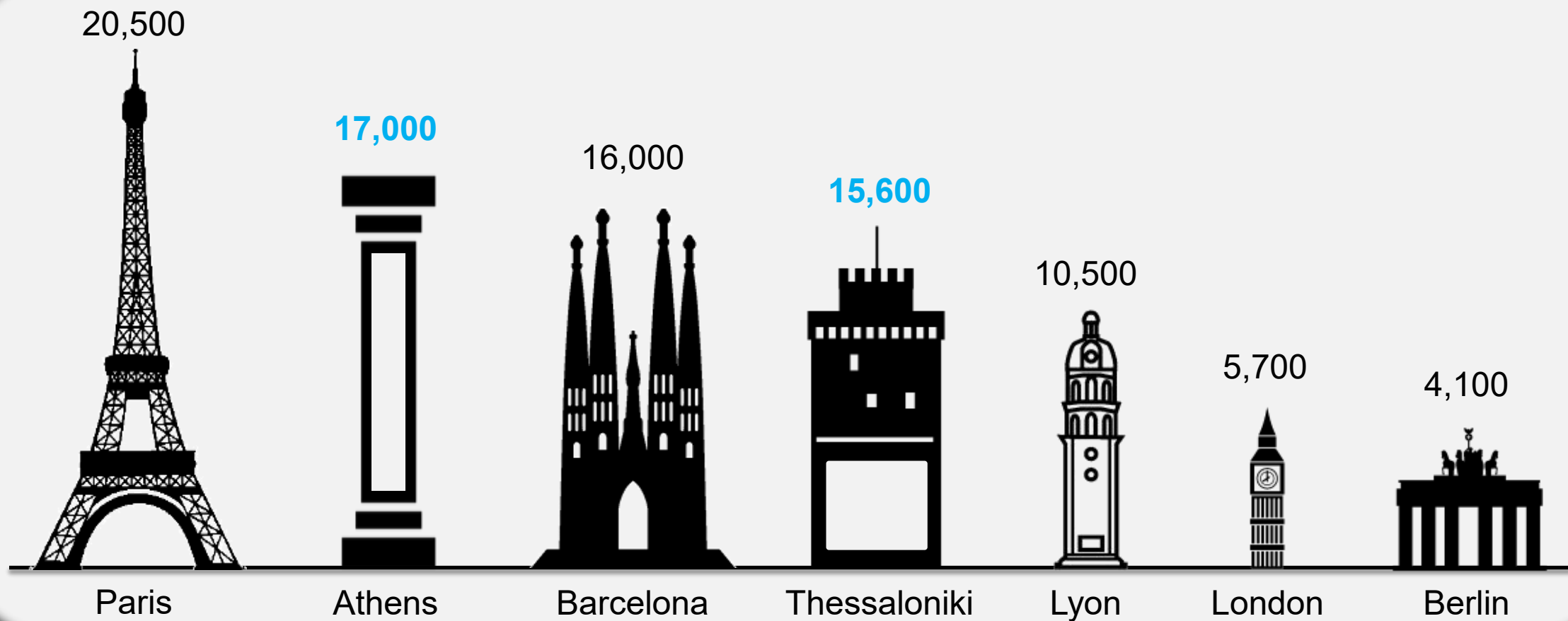
Smart Cities are getting more and more relevant

Maria Paschalidou
ICT / Smart City Solution - Senior Account Manager





Greek Cities are some of the most densely populated Cities across Europe in terms of Citizens per km²



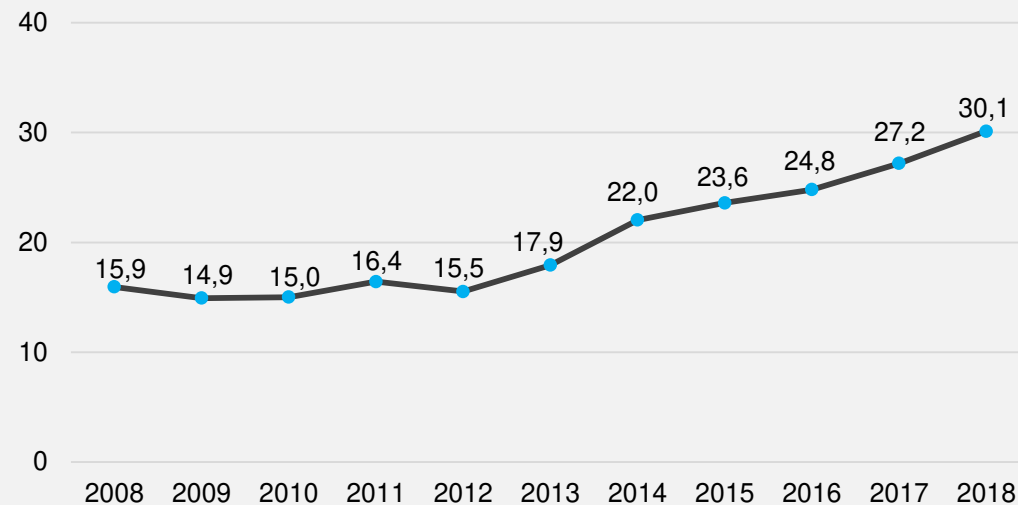


In Addition, Millions of Tourists use the Cities as a Hub of their Travel Routes, making the Cities even more crowded

> 30 mn.

Tourists per Year –
with an upward Trend

Touristic arrivals in Greece per Year (in mn.)



Traffic &
Air Pollution



Energy



Waste

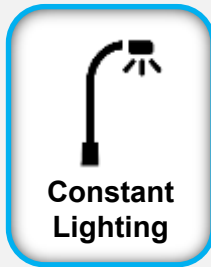


Water





A lot of Energy is wasted that could be saved – especially with regard to a City's Street Lighting



Street Lighting accounts for

40 %

of Municipal Energy Use

Smart Lighting saves up to

70 %

of Energy Costs



To Date, also a City's Building Management is anything but efficient

6 PM – 6 AM makes

46 %

of a Building's Energy Usage

Cost Saving Potential of up to

32 %

through Smart Solutions



**Heating at
Night**



**Lighting at
Night**



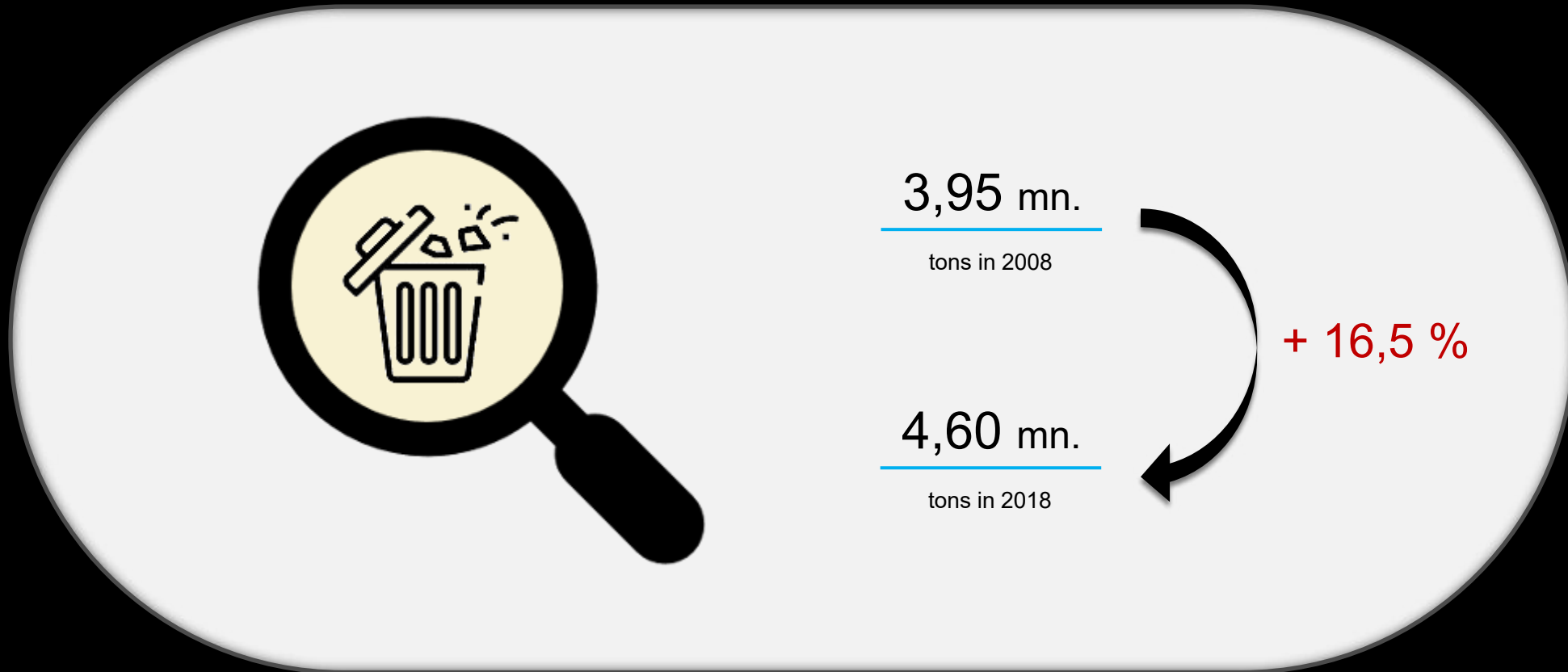
**Inefficient
Metering**



**No Remote
Control**



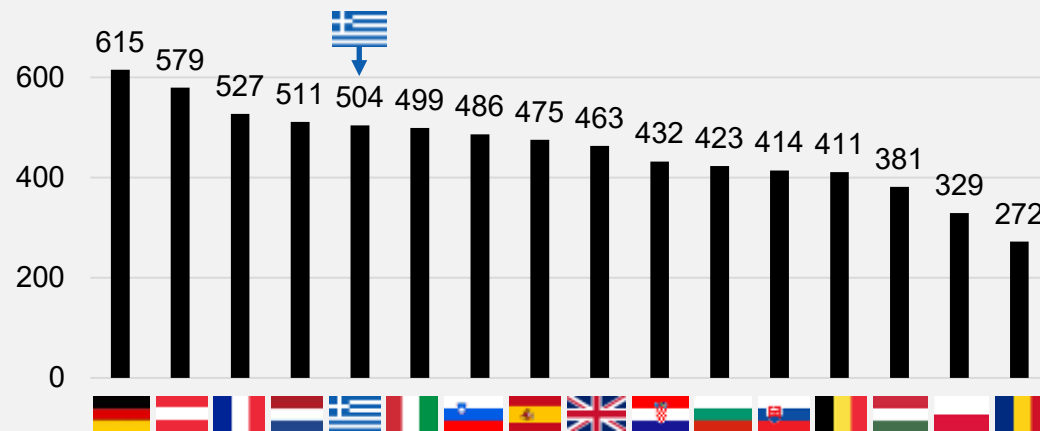
In Greek Cities, generated Waste through private Households increased by over 16% within 10 Years





Per Capita, Greeks produce around 16 kg more municipal Waste than the average European Citizen

Municipal Waste in European Countries 2018
(in kg per Capita)



488 kg

European Ø

504 kg

per Capita in Greece



Current Waste Management is inefficient and uses a lot of Resources



Inefficient
Routes



Low Fill
Levels



Overfilled
Bins



Missing
Monitoring

One Garbage Truck burns

95 L

of Diesel per 100 km

Cost Reduction of up to

50 %

through Route Optimization



A significant Percentage of all Traffic and its related Emissions in Cities is due to the Search for a free Parking Spot



20 min.

Ø Search Time to
find a Parking Spot

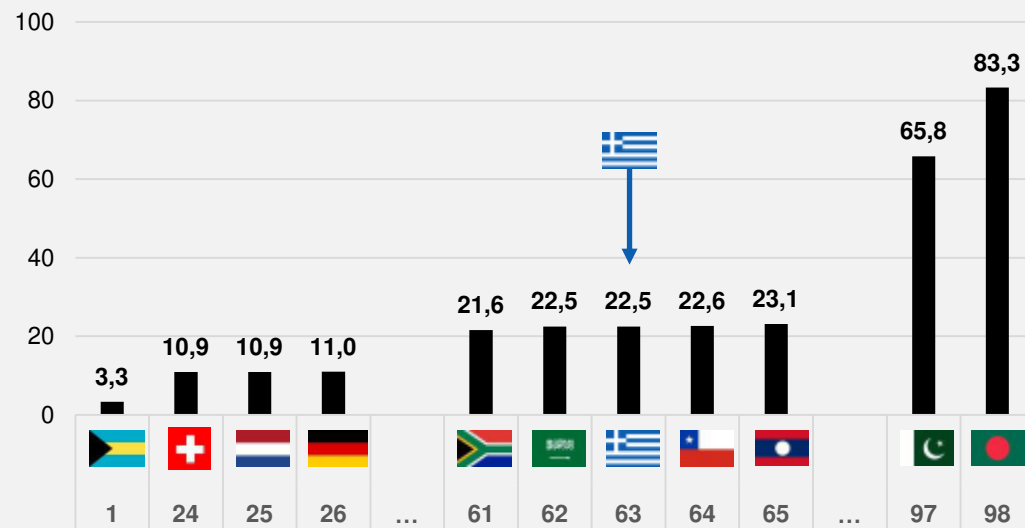
30 %

of all Traffic Emission
within Cities



As a Result, Greece comes with a below Average Air Quality – the Fine Dust Concentration is two Times above WHO Exposure Recommendation

Country Ranking on Basis of the Air Quality Index



63rd

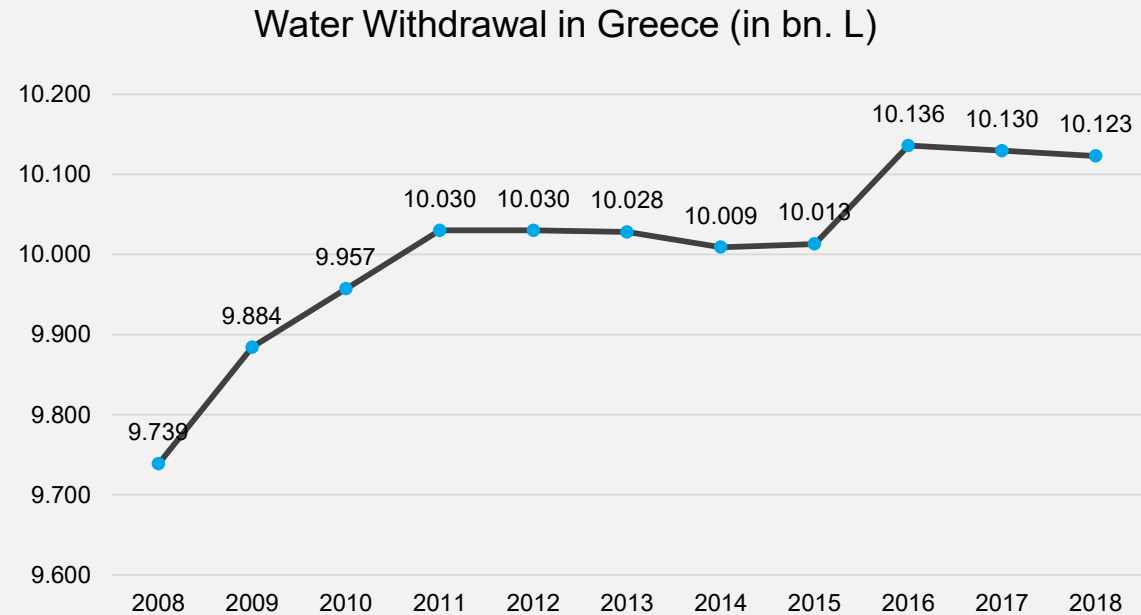
Place among 98 Countries
(Air Quality Index)

2 x

above WHO Recommendation
for Fine Dust Exposure



The overall Amount of Freshwater taken from Ground or Surface Water in Greece is constantly increasing



+ 400 bn.

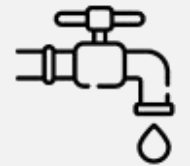
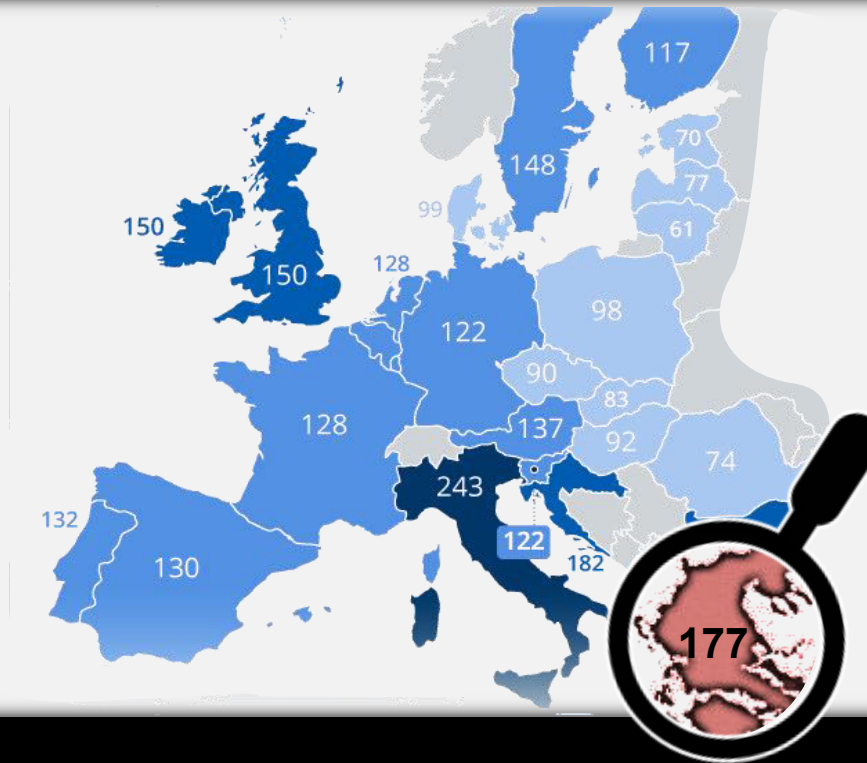
Liters in 10 Years



Greek Households are one of the highest Water Users in whole Europe, each Citizen consumes almost 180 liters – every single Day

+ 23 %

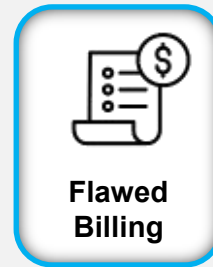
above European ø



177 ltr.
per Person per Day



The Problem: the current Water Management is very inefficient



Of all distributed Water, up to

40 %

is lost, mostly due to Leaks

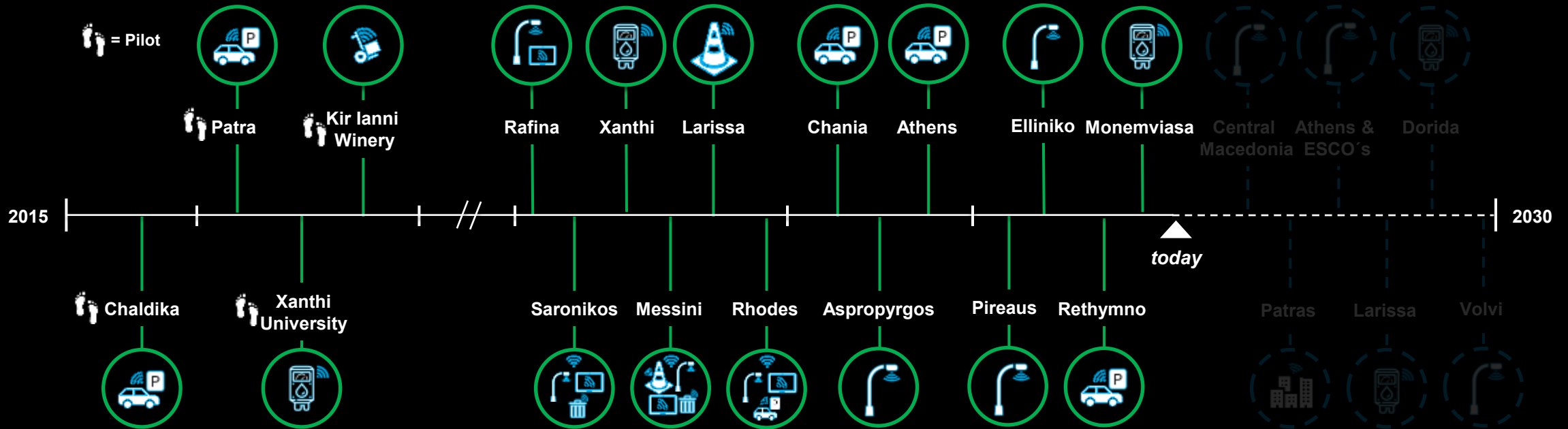
Missing Charging of up to

60 %

of all consumed Water



Besides its advantageous Setting, COSMOTE is already in the Game with many successfully implemented Solutions





We help tackling these Issues with our growing Smart City Portfolio



Smart Parking



Smart Traffic Management



Smart Lighting



Air Quality Monitoring



Smart Waste Management



Smart Water Management



Energy Management



Smart Bench



Smart Public Safety



Smart Public Transport



Smart City Dashboard



Smart Charging



Municipalities & Cities can't afford Smart City Solutions by Themselves – however, there are huge EU Funds available in Greece

European Structural & Investment Funds (ESIF)

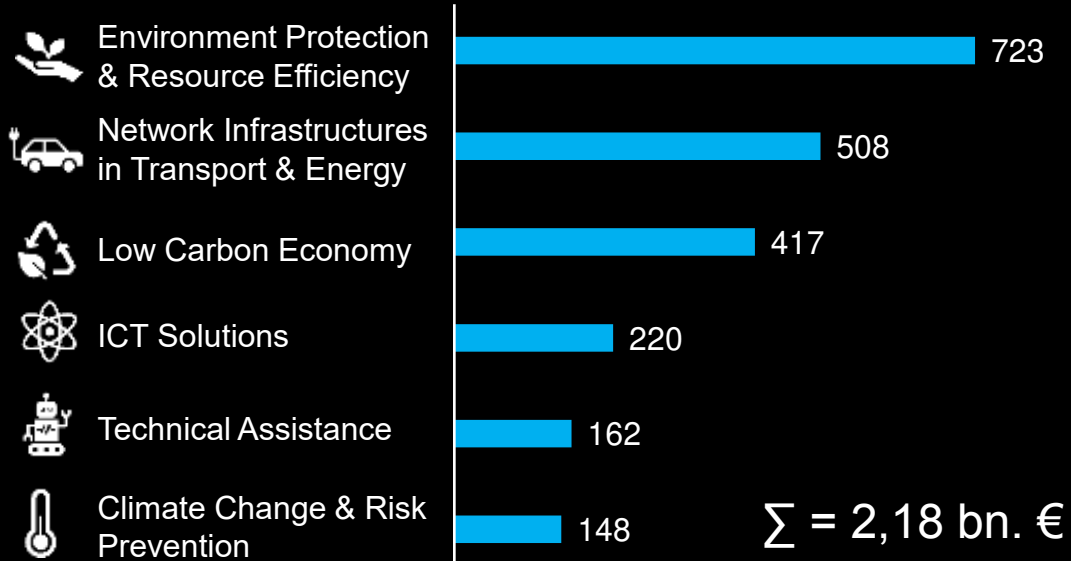


4,9 bn. €



2014 – 2020

Budget for Smart City related Themes (in mn. €)



Tritsis Call EU Recovery Fund

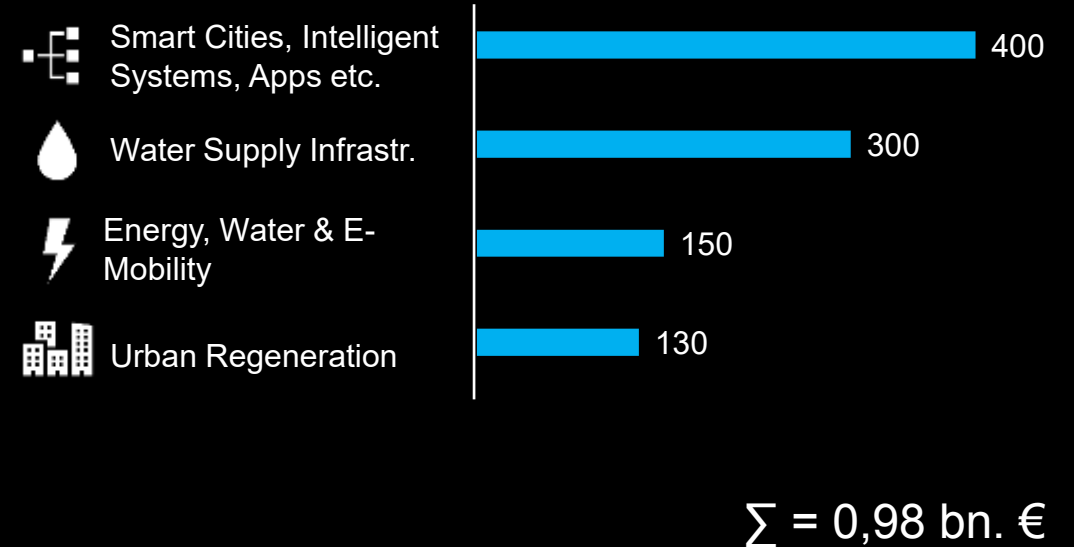


1,85 bn. €



2020 - 2027

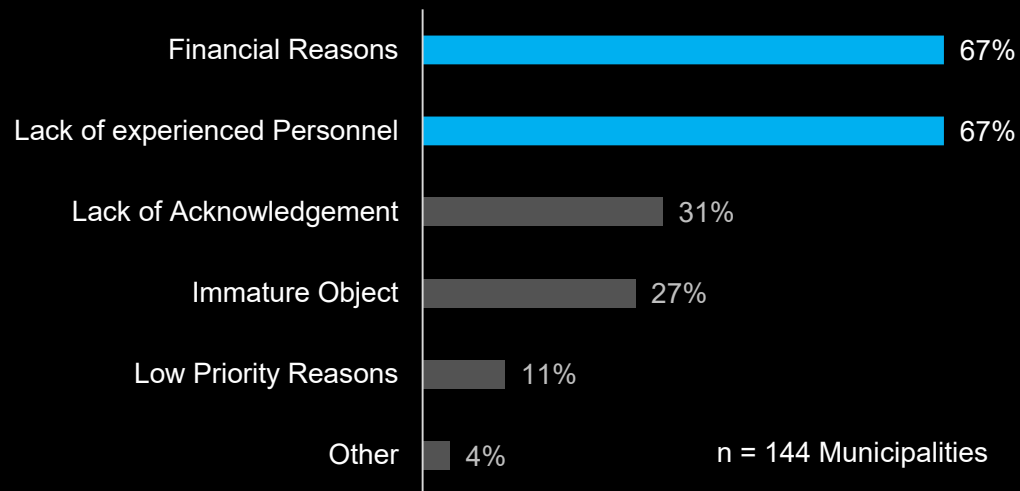
Budget for Smart City related Themes (in mn. €)





Financial Reasons & the Lack of experienced Personnel are the main Barriers for the Implementation of Smart Solutions

Smart City Barriers of Municipalities



2
—
3

of all Greek Municipalities identify their Financials & Lack of Experience as current main Barriers



Thank you for
your attention