



Better regulation for climate neutrality

6th DECEMBER 2023

ROYAL MUSEUMS OF FINE ARTS OF BELGIUM
Place du Musée/Museumplein, 1000 Brussels

SESSION 1
THE NEW EU URBAN
WASTEWATER TREATMENT
DIRECTIVE:
POTENTIAL IMPLICATIONS
FOR WATER CUSTOMERS
AND INDUSTRY IN THE EU

SESSION 2
THE EU VISION
FOR CLIMATE NEUTRALITY
AND THE WATER-TO-ENERGY
NEXUS

SESSION 3
CLIMATE RESILIENCE
AND ADAPTION OF WATER
SERVICES IN THE EU AND
EU NEIGHBOURING COUNTRIES

SESSION 1

THE NEW EU URBAN WASTEWATER TREATMENT DIRECTIVE:
POTENTIAL IMPLICATIONS FOR WATER CUSTOMERS AND INDUSTRY IN THE EU

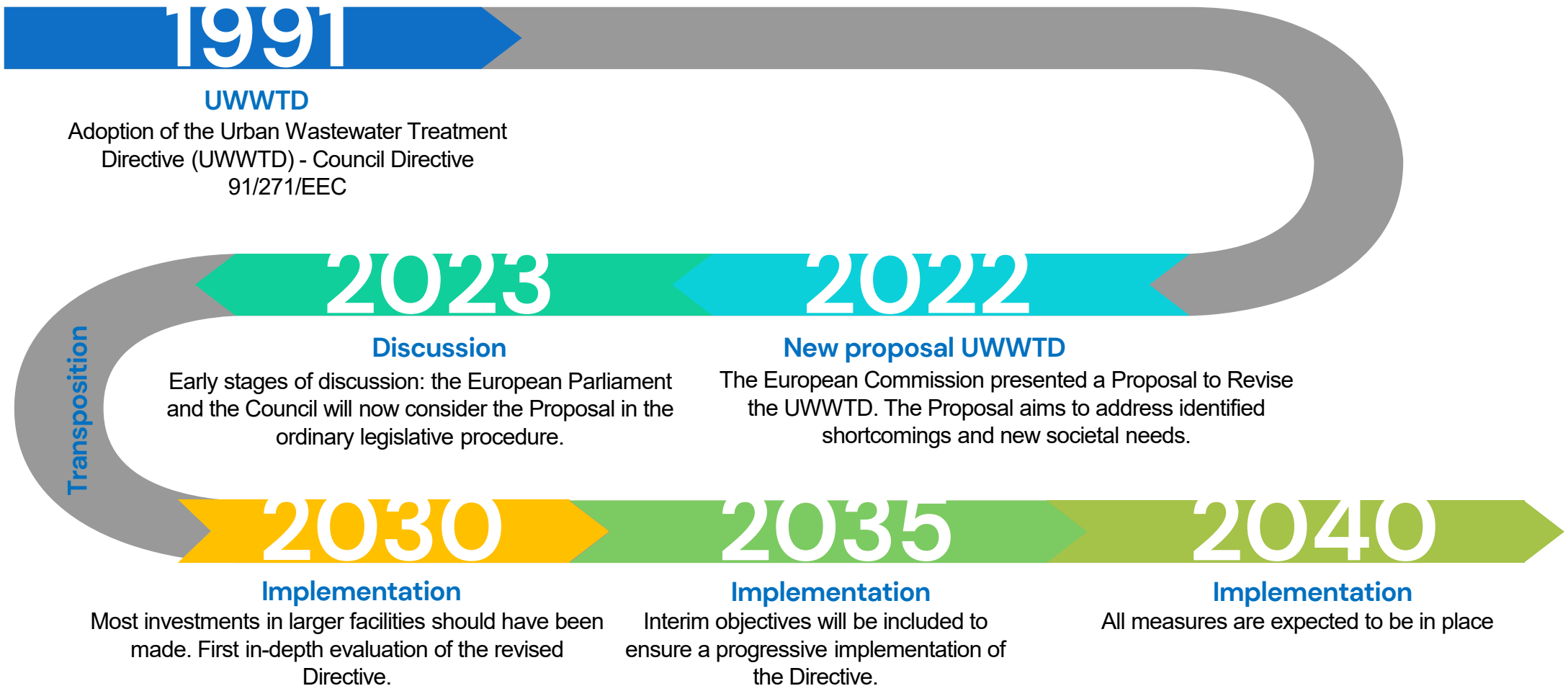
VERA EIRÓ

President of the Board of Directors

ERSAR - The Water and Waste Services Regulation Authority (Portugal)

**WAREG Study on the Economic Impacts
of the new UWWTD**

Context – the new wastewater treatment directive



Context – main challenges



WWTD proposal: COM estimated economic impacts

BY 2040, THE EUROPEAN COMMISSION FORESEES
TOTAL COSTS OF EUR **3.793 BN** PER YEAR, BELOW
THE EXPECTED MONETISED BENEFITS OF EUR **6.643**
BN PER YEAR



COMMISSION EXPECTS AN AVERAGE INCREASE
IN WATER TARIFFS (BY 2040)

ADDITIONAL COSTS ARE EXPECTED TO BE COVERED BY A COMBINATION OF:



51%
WATER TARIFFS



22%
PUBLIC BUDGETS



27%
NEW SYSTEM OF
EXTENDED PRODUCER
RESPONSIBILITY

2,26%

AT THE EU LEVEL, WITH SOME DIFFERENCES
BETWEEN MS

NO OVERALL
AFFORDABILITY ISSUES
EXPECTED IN WATER
SERVICES IN ANY MS,
DESPITE THE INCREASE
IN TARIFFS



WWTD proposal: Evidences suggest higher impacts



PRELIMINARY ESTIMATES FOR
ÁGUAS DE PORTUGAL GROUP POINT
TO AN AVERAGE INCREASE OF

↑ ~32%

(IN ONE CASE EVEN REACHING 71%)



PORTUGAL HAS SOME
CHARACTERISTICS
THAT MAY LEAD TO A
SIGNIFICANT IMPACT,
BUT DIFFERENCES
ARE TOO BIG TO BE
JUSTIFIABLE

THE IMPACTS OF THE
PROPOSAL ARE **VERY
DIFFERENT** DEPENDING
ON EACH COUNTRY'S
SITUATION AND
CHARACTERISTICS



THE DOCUMENTS ACCOMPANYING COM'S
PROPOSAL HAVE **NO DETAILED INFORMATION ON
HOW COSTS AND BENEFITS WERE CALCULATED**
WHICH MAKES IT DIFFICULT TO REPLICATE
ESTIMATES AT THE NATIONAL LEVEL



HAVING AN ESTIMATE FOR
**SEVERAL EUROPEAN
COUNTRIES**
BASED ON COMMON
ASSUMPTIONS
CONSIDERING REGULATORY
INFORMATION

WAREG study assumptions and participation

ASSUMPTIONS

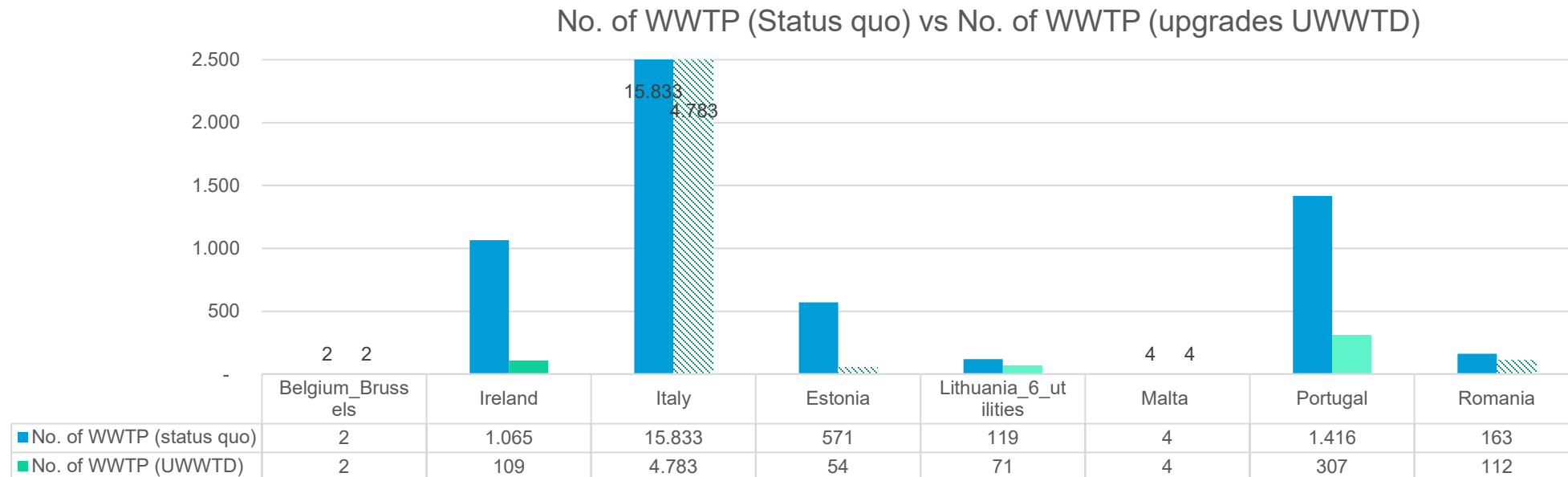
1. **Articles 6, 7, 8. NO OTHER ARTICLES WERE CONSIDERED** SINCE THEY CAN HAVE POSITIVE OR NEGATIVE IMPACT DEPENDING ON EACH COUNTRY'S SITUATION
2. **PRECAUTIONARY APPROACH ON THE RISK ASSESSMENT (ARTICLE 18) DUE TO UNCLEAR CRITERIA FOR THE DEFINITION OF SENSITIVE AREAS – STATUS OF WATER BODIES BELOW "GOOD" SHOULD HAVE AN UPGRADE**
3. AREAS WITH HIGH CONCENTRATION OF MICROPOLUTANTS WERE CONSIDERED DEPENDING ON THE EXISTENCE OF INDUSTRIES
4. **ONLY THE COSTS ARISING FROM THE NEW DIRECTIVE WERE CONSIDERED.** COSTS OF UPGRADES TO REACH THE TREATMENT LEVELS OF THE CURRENT DIRECTIVE NOT CONSIDERED
5. UPGRADES IN TERTIARY TREATMENT TO COMPLY WITH NEW LEVELS OF NITROGEN AND PHOSPHORUS WERE CONSIDERED

PARTICIPATION AND ESTIMATES

1. **8 COUNTRIES/REGIONS** HAVE PROVIDED SOME INFORMATION ABOUT THE **WASTEWATER CURRENT SITUATION**
2. **4 COUNTRIES/REGIONS** HAVE PROVIDED INFORMATION ABOUT WWTP TO BE UPGRADED AND AFFECTED P.E. **SAMPLE – 468 WWTP AND 25.699.865 P.E.**
3. **2 COUNTRIES** HAVE PROVIDED INFORMATION ABOUT ESTIMATED CAPEX AND OPEX ARISING FROM THE NEW DIRECTIVE **SAMPLE – 372 WWTP AND 19.058.562 P.E.**
4. WE HAVE USED THE INFORMATION PROVIDED BY MEMBERS TO EXTRAPOLATE FOR OTHER COUNTRIES, ACCORDING TO THE DISTRIBUTION OF WWTP IN EACH CLUSTER OF TREATMENT LEVEL/P.E. BRACKET
5. THE COSTS FOR OTHER COUNTRIES WERE ALSO ESTIMATED BASED ON THE CAPEX AND OPEX PROVIDED FOR EACH CLUSTER OF TREATMENT LEVEL/P.E. BRACKET

WAREG study findings (estimates)

- % OF WWTP TO BE UPGRADED – 28 %
- P.E. WHOSE TREATMENT WOULD BE UPGRADED - 42 MILLION (7 COUNTRIES)



Note 1: The shaded bars represent values estimated from the average values of the countries who have provided information.

Note 2: The countries considered to calculate the average WWTP per cluster of treatment level/p.e. were: Belgium_Brussels, Ireland, 4 utilities from Lithuania and mainland Portugal.

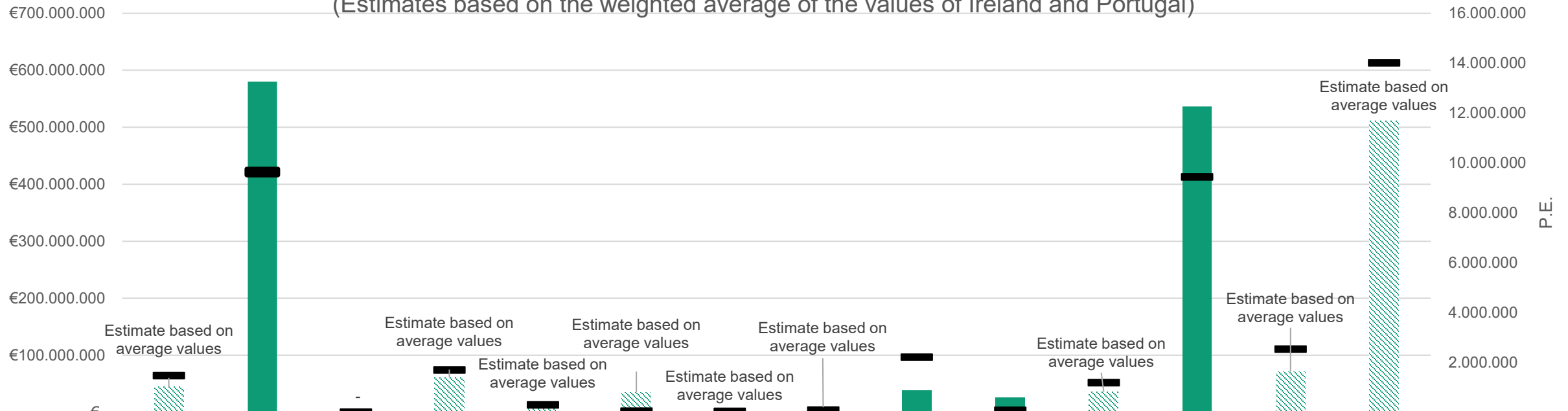
Note 3: The No. of WWTP (upgrades UWWTD) of 3 utilities from Lithuania was estimated based on the average values per cluster of the countries who have provided information.

Note 4: The No. of WWTF (status quo) from Romania does not include 1038 WWTP whose information is not disaggregated nor includes information about the p.e..

WAREG study findings (estimates)

CAPEX (€) vs UWWTD P.E. (No.)

(Estimates based on the weighted average of the values of Ireland and Portugal)

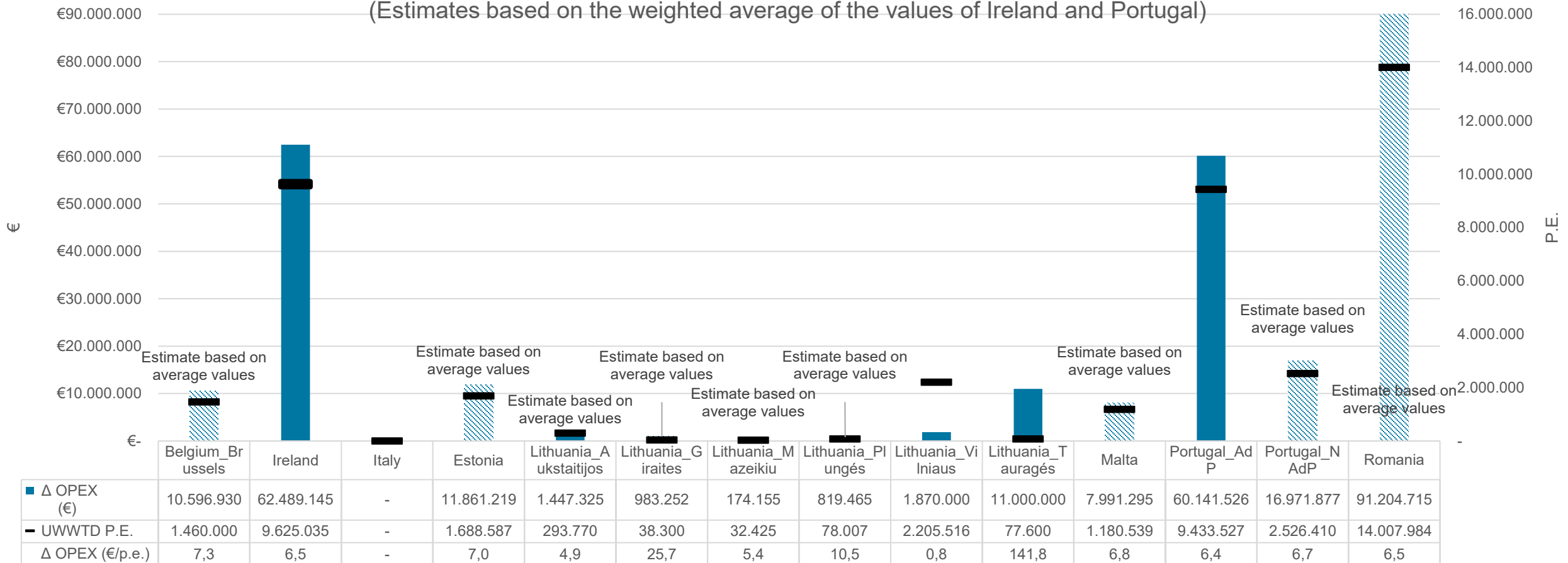


	Belgium_Brussels	Ireland	Italy	Estonia	Lithuania_Aukstaitijos	Lithuania_Giraites	Lithuania_Mazeikiu	Lithuania_Plunges	Lithuania_Vilniaus	Lithuania_Taurages	Malta	Portugal_AdP	Portugal_NAdP	Romania
Δ CAPEX (€)	44.510.637	580.264.13	-	61.209.662	10.333.357	34.988.997	2.278.354	8.707.942	38.400.000	25.000.000	36.004.382	536.455.71	71.471.789	510.789.91
UWWTD P.E.	1.460.000	9.625.035	-	1.688.587	293.770	38.300	32.425	78.007	2.205.516	77.600	1.180.539	9.433.527	2.526.410	14.007.984
Δ CAPEX (€/p.e.)	30,5	60,3	-	36,2	35,2	913,6	70,3	111,6	17,4	322,2	30,5	56,9	28,3	36,5

WAREG study findings (estimates)

OPEX (€) vs UWWTD P.E. (No.)

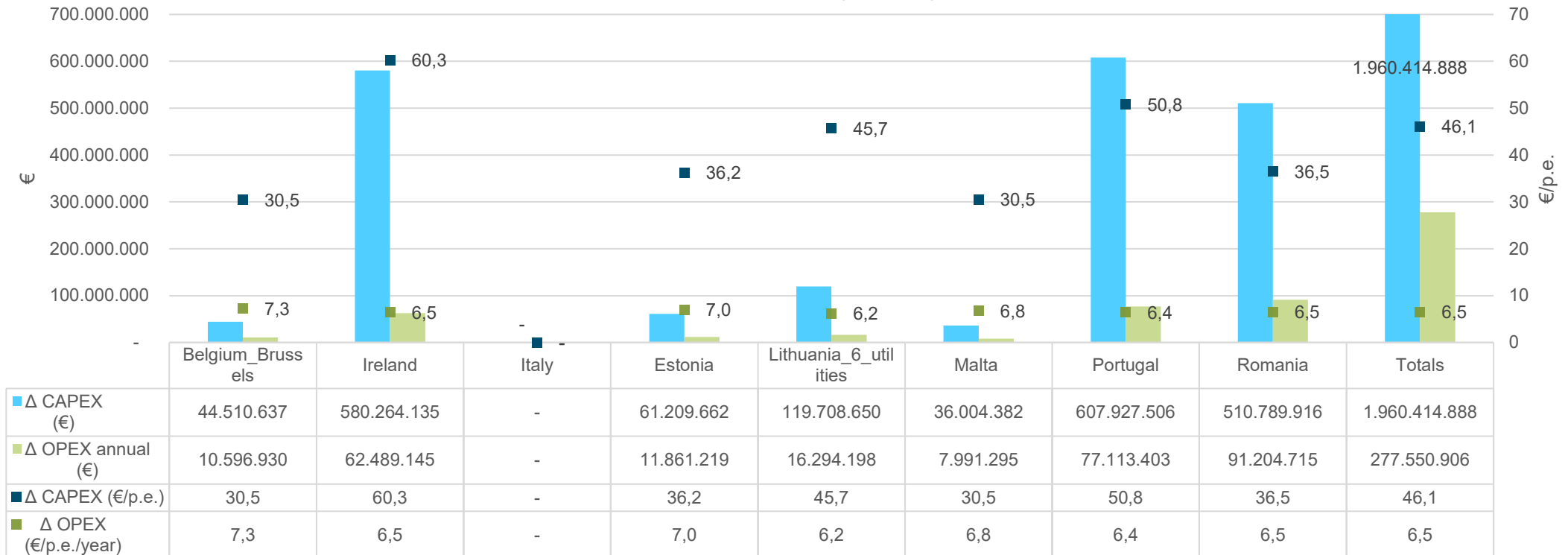
(Estimates based on the weighted average of the values of Ireland and Portugal)



WAREG study findings (estimates)

- TOTAL ADDITIONAL CAPEX – 1.960 MILLION EUR (7 COUNTRIES)
- AVERAGE Δ CAPEX / P.E. – 46,1 € / P.E.
- TOTAL ADDITIONAL OPEX – 276 MILLION EUR /YEAR (7 COUNTRIES)
- AVERAGE Δ OPEX / P.E. – 6,5 € / P.E.

CAPEX and OPEX (annual)



WAREG study findings (estimates)

- TOTAL ADDITIONAL EXPENDITURE PER YEAR PER CAPITA – 9,2 €/PER CAPITA (Δ CAPEX PER YEAR* + Δ OPEX PER YEAR)
- DIFFERENT IMPACTS DEPENDING FROM COUNTRY TO COUNTRY – MIN 7,5 €/PER CAPITA, MAX 17,7 €/PER CAPITA

	Δ Expenditure annual (UWWTD) per capita (€) corrected by PPC	Additional UWWTD average cost of service (€/m3)	Increase in average cost of service (%) - New UWWTD
Belgium_Brussels	8,54 €	-	-
Ireland	7,53 €	-	-
Estonia	12,56 €	-	-
Lithuania_6_utilities	8,66 €	0,21 €	21,2%
Malta	17,71 €	-	-
Portugal	13,34 €	0,27 €	32,7%
Romania	7,96 €	-	-
Totals	9,24 €	0,25 €	29,9%

- IF NO OTHER SOURCES OF FINANCING ARE ASSEMBLED THIS WOULD MEAN AN INCREASE OF ALMOST 30% IN CONSUMER TARIFFS ACCORDING TO THE ESTIMATES OF AT LEAST TWO COUNTRIES

* Considering a linear depreciation for 20 years. No remuneration of capital was considered.

Conclusions and way forward

1. FURTHER WORK IN TRYING TO ESTIMATE THE IMPACTS IN VARIOUS WAREG COUNTRIES
2. CONSUMERS WILL HAVE A BIG IMPACT IN THEIR TARIFFS IF NO OTHER SOURCES OF FINANCING ARE ASSEMBLED (BOTH FOR CAPEX AND OPEX) – IMPORTANT TO ENSURE THAT THE INDUSTRY IS COMMITTED TO CHANGE CONSUMER BEHAVIOUR AND TO ENSURE POLLUTERS' PAY PRINCIPLE
3. EVEN IF POLLUTION IN THE URBAN SECTOR IS SOLVED THERE ARE OTHER SOURCES OF POLLUTION THAT NEED TO BE ADDRESSED
4. REINFORCEMENT OF MONITORING IS KEY TO ENSURE THAT INVESTMENTS ARE EFFECTIVE
5. GOVERNANCE AND ACCESSIBILITY OF INFORMATION REGARDING ENVIRONMENTAL STATUS AND IMPACTS REQUIRES FURTHER TRANSPARENCY
6. REGULATORS CAN PROVIDE RELIABLE INFORMATION AND ECONOMIC INPUTS FOR BETTER POLICIES

