

# **Social Dialogue in the Water Supply Sector in four EU countries**

## **SWOT analysis and Synthesis Report, prepared for the 101102352 ProSDinWater project**

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## 1. Introduction

Social dialogue is defined by the International Labour Organisation<sup>1</sup> as all forms of negotiation, consultation or simply the exchange of information between representatives of governments, employers and workers on issues of common concern. The question of the quality and effectiveness of social dialogue has been debated for decades, involving stakeholders such as trade unions, employers and the state, as well as institutional bodies concerned with regulating industrial relations, improving labour productivity and working conditions.

Over the years, different methodological approaches have been explored to achieve a unified set of measurable indicators. However, no single criterion for measuring the effectiveness of social cooperation in the process of social dialogue has yet been adopted, either at national or European level.

In the framework of the project ProSDinWater, the planned research activities, including the national reports summarising an analysis of the strengths and weaknesses of the social dialogue (Task 1.3.), aim to compare information obtained from legitimate representatives participating in the social dialogue and from workers in the sector. This comparison is intended to verify the most appropriate effectiveness indicator based on comparability, which will serve as a basis for strengthening and improving social dialogue in the future, especially in a constantly changing global environment.

The SWOT analysis of social dialogue in the water sector in the four countries covered by this project, namely Bulgaria, Italy, Malta and Northern Macedonia, aims to outline the strengths, weaknesses, threats and potential opportunities for the effectiveness of social dialogue.

## 2. Methodology

SWOT analysis assesses internal and external factors, as well as current and future potential of organizations and processes<sup>2</sup>. It is designed to facilitate a realistic, fact-based, data-driven look at the strengths and weaknesses of an organization, initiatives, or within its industry. The organization needs to keep the analysis accurate by avoiding pre-conceived beliefs or gray areas and instead focusing on real contexts.

The methodology for the preparation of the report includes a preliminary review of the existing experience, a desk research of the existing literature, normative sources, analysis of documents and results of the social dialogue between the social partners conducted so far, as well

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<sup>1</sup> The International Labour Organisation (ILO) *Social dialogue and tripartism* <https://www.ilo.org/topics/social-dialogue-and-tripartism> (accessed on 24 July 2024)

<sup>2</sup> Sammut-Bonnici, T., & Galea, D. (2015). SWOT analysis. *Wiley Encyclopedia of management*, 1-8.



as on the basis of the long experience of the experts involved in the project, all of them part of the legitimate representatives in the social dialogue in the water supply sector. Relevant research approaches and techniques have been applied, resulting in the empirical information sought. Data collection and analysis are structured around the following variables: Regulatory Base, Human Resources, Financial situation, Wages, Technologies, Information Issues and Security, Social Dialogue and Cooperation and Specific issues related to the Water supply Industry - such as climate change impact; water scarcity and conservation; infrastructure modernization, etc.

The conclusions and recommendations based on the analyses are both relevant to the individual countries included in the project and focus on the most important common elements of the thematic areas thus identified.

The collection of the information in the four countries was done between February and May 2024, following a common analytical framework and structure, developed by the external experts (See it in an Annexe).

### 3. The water supply sector in Europe

According to a recent analysis of Eurostat<sup>3</sup>, there were almost 79 700 enterprises classified within the EU's water supply, sewerage, waste management and remediation activities sector (Section E) in 2021, an increase of 2.1 % compared with 2020. These enterprises employed 1.6 million persons, 2.4 % less than the previous year. They generated €107.0 billion of value added, 4.7 % more than in 2020 and €290.5 billion of net turnover, 13.5 % more than in 2020.

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<sup>3</sup> [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Businesses in the water supply, sewerage, waste management and remediation sector&oldid=627682](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Businesses_in_the_water_supply_sewerage_waste_management_and_remediation_sector&oldid=627682)



## Key indicators, Water supply; sewerage, waste management and remediation activities (NACE Section E), EU, 2021

	Value
<b>Main indicators</b>	
Number of enterprises (number)	79 675
Number of persons employed (number)	1 562 074
Net turnover (€ million)	290 522
Purchases of goods and services (€ million)	188 590
Employee benefits expense (€ million)	57 800
Value added (€ million)	107 045
Gross operating surplus (€ million)	49 246
<b>Share in business economy total (%)</b>	
Number of enterprises	0.3
Number of persons employed	0.0
Value added	0.8
<b>Derived indicators</b>	
Apparent labour productivity (thousand € per head)	68.5
Average employee benefits expense (thousand € per head)	38.1
Wage-adjusted labour productivity (%)	179.7
Gross operative rate (%)	17.0

Source: Eurostat (online data code: sbs\_ovw\_act)

eurostat 

The breakdown of companies could be examined in the table below. It can be seen that only in the field of water collection, treatment and supply there were about 15 000 active companies in the European Union in 2021, employing about 338 200 people.

Sectoral analysis of key indicators, Water supply; sewerage, waste management and remediation activities (NACE Section E), EU, 2021

	Number of enterprises (thousands)	Number of persons employed	Turnover	Value added (€ million)	Employee benefits expense
<b>Water supply; sewerage, waste management and remediation activities</b>	79.7	1 562.1	290 522.1	107 044.9	57 799.6
Water collection, treatment and supply	15.0	338.2	:	26 000.0	11 923.6
Sewerage	12.0	150.0	:	13 000.0	6 000.0
Waste collection, treatment and disposal activities; materials recovery	48.0	1 040.0	207 000.0	66 000.0	38 600.0
Remediation activities and other waste management services	4.3	35.0	6 563.0	2 140.0	1 397.0

(.) not available

Source: Eurostat (online data code: sbs\_ovw\_act)

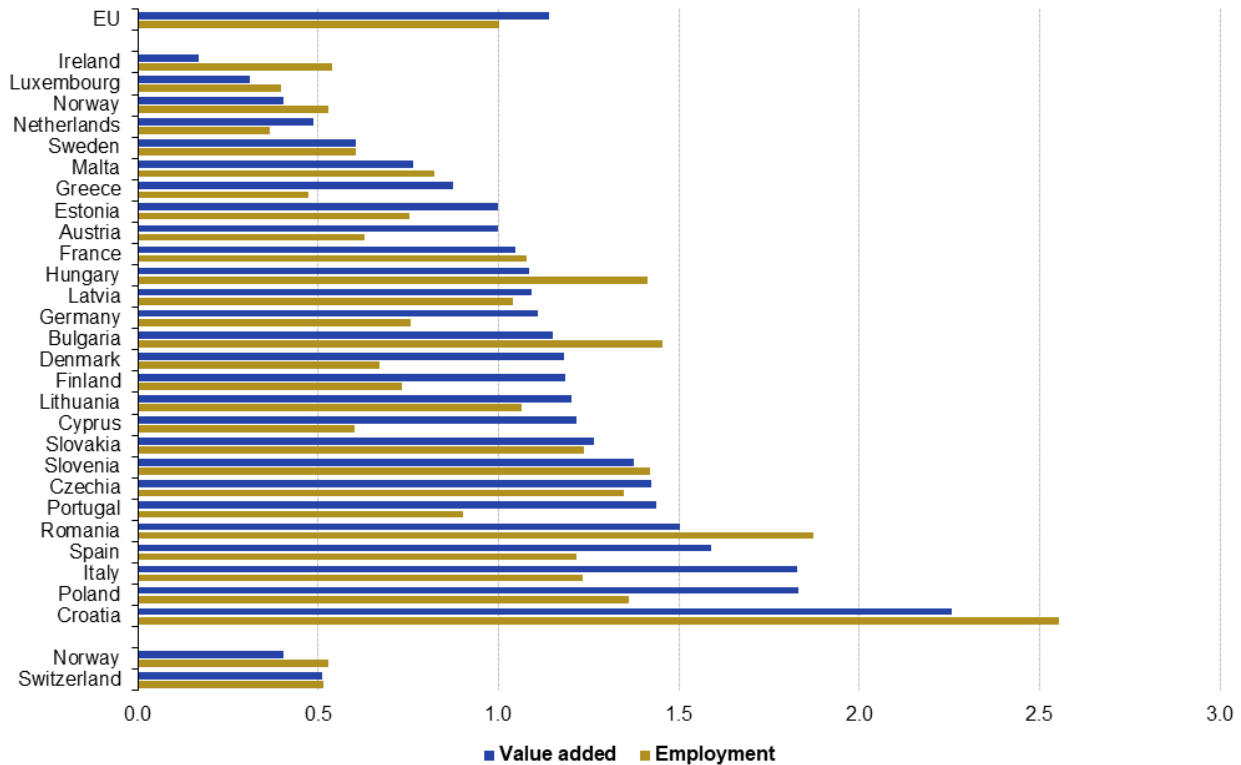
eurostat 



The relative importance of employment in the sector varies across Europe, as it can be seen at the next figure. The highest employment rate was registered in Croatia, where 2.9 % of the persons employed in the business economy were employed in the water supply, sewerage, waste management and remediation activities sector. In Romania and Bulgaria, the employment share was 1.9 % and 1.5 %, respectively. On the other side, in Luxembourg and the Netherlands this sector contributed to only 0.4 % of the business economy employment.

### Relative importance of Water supply; sewerage, waste management and remediation activities (NACE Section E), EU, 2021

(% share of value added and employment in the business economy total)



Ranked on value added

Source: Eurostat (online data code: sbs\_oww\_act)

In absolute terms, Italy, together with Germany and France had the largest number of persons employed in the water supply, sewerage, waste management and remediation activities sector in 2021, each with more than 200 000 persons employed in terms of value added, Germany had by far the largest water supply, sewerage, waste management and remediation activities sector, generating €30.5 billion, or 28.5 % of overall value added in sector. It was followed by Italy (16.9 %).



## Key indicators, Water supply; sewerage, waste management and remediation activities (NACE Section E), EU, 2021

	Number of enterprises (thousands)	Number of persons employed	Net turnover	Value added (€ million)	Employee benefits expense	Gross investment in tangible non-
<b>EU</b>	<b>79.7</b>	<b>1 562.1</b>	<b>290 522.1</b>	<b>107 044.9</b>	<b>57 799.6</b>	<b>31 521.1</b>
Belgium	1.3	25.5	11 059.2	3 908.6	1 678.5	1 991.5
Bulgaria	0.8	31.0	1 310.4	469.9	292.2	91.2
Czechia	7.3	55.5	6 546.4	2 005.9	1 081.6	618.5
Denmark	2.4	14.4	5 557.2	2 260.8	714.7	1 949.4
Germany	9.1	290.1	78 371.1	30 520.4	15 030.2	8 361.0
Estonia	0.3	3.9	858.5	191.8	89.1	139.6
Ireland	1.1	11.0	2 842.2	628.0	514.2	52.9
Greece	2.0	15.4	1 682.5	651.9	377.8	159.0
Spain	6.8	182.6	23 655.6	10 674.8	6 673.7	1 055.7
France	11.3	211.4	47 696.9	14 208.9	10 217.8	4 419.5
Croatia	0.8	31.0	1 733.6	758.2	531.8	557.1
Italy	9.6	217.1	47 286.1	18 038.1	9 200.3	3 720.7
Cyprus	0.2	2.1	404.5	188.8	54.2	48.7
Latvia	0.3	7.2	447.0	191.9	112.3	109.0
Lithuania	0.4	12.6	863.0	382.9	200.3	164.4
Luxembourg	0.1	1.5	355.6	155.9	87.7	72.8
Hungary	1.8	46.1	2 978.7	984.8	691.9	263.3
Malta	0.2	1.9	153.8	86.5	41.4	6.4
Netherlands	2.0	30.5	11 761.5	3 952.0	1 896.5	1 509.0
Austria	2.8	22.6	7 153.2	2 540.9	1 291.1	676.5
Poland	8.1	155.1	13 995.7	5 947.9	2 542.5	1 767.2
Portugal	1.3	37.2	4 324.3	1 726.4	792.3	370.5
Romania	3.5	87.6	4 676.9	1 651.7	983.6	950.9
Slovenia	0.4	10.7	1 739.2	466.4	323.6	84.8
Slovakia	1.8	21.9	1 668.2	691.3	423.1	202.4
Finland	2.4	12.2	3 824.3	1 510.7	637.4	805.9
Sweden	1.4	24.2	7 576.5	2 249.7	1 319.8	1 373.2
Norway	1.3	9.6	3 963.7	1 070.0	636.7	200.8
Switzerland	0.8	16.9	6 111.3	2 345.6	:	712.9

(:) not available

Source: Eurostat (online data code: sbs\_ovw\_act)

eurostat 

The available data about the labour productivity shows that the four examined countries have been all ranked below the EU average figures.



## Key indicators, Water supply; sewerage, waste management and remediation activities (NACE Section E), EU, 2021

	Apparent labour productivity (thousand € per head)	Average employee benefits expense	Wage-adjusted labour productivity (%)	Gross operative rate
<b>EU</b>	68.5	38.1	179.7	17.0
Belgium	153.1	68.1	224.9	20.2
Bulgaria	15.2	9.6	158.4	13.6
Czechia	36.1	22.4	161.6	14.1
Denmark	157.3	53.3	295.5	27.8
Germany	105.2	52.2	201.4	19.8
Estonia	49.4	23.5	210.1	12.0
Ireland	57.3	48.0	119.3	4.0
Greece	42.4	27.1	156.4	16.3
Spain	58.5	37.3	156.8	16.9
France	67.2	49.7	135.2	8.4
Croatia	24.5	17.3	141.8	13.1
Italy	83.1	44.2	188.1	18.7
Cyprus	89.7	26.3	341.2	33.3
Latvia	26.7	15.7	169.5	17.8
Lithuania	30.5	16.0	190.5	21.2
Luxembourg	103.5	58.5	177.0	19.2
Hungary	21.4	15.5	138.3	9.8
Malta	46.8	24.2	193.3	29.3
Netherlands	129.7	63.8	203.2	17.5
Austria	112.6	59.9	188.0	17.5
Poland	38.3	17.0	225.5	24.3
Portugal	46.5	21.6	215.1	21.6
Romania	18.9	11.4	166.3	14.3
Slovenia	43.6	30.6	142.4	8.2
Slovakia	31.6	20.4	155.0	16.1
Finland	123.8	54.0	229.3	22.8
Sweden	93.0	62.0	150.1	12.3
Norway	111.5	66.8	166.9	10.9
Switzerland	138.9	:	:	17.1

(:) not available

Source: Eurostat (online data code: sbs\_ovw\_act)

eurostat 



## 4. SWOT analysys results

The SWOT analysis results have been summarized first by country in the tables below and in a comparative perspective in the second part of section 4.

<b>BULGARIA (FCIW PODKREPA)</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- Laws and regulations in line with EU directives</li> <li>- Often combined/shared state and municipal ownership of water companies in the country, allowing for mutual control</li> <li>- Existence of a diverse institutional network with many actors such as               <ul style="list-style-type: none"> <li>o In 2015, the SEWRC was renamed the Energy and Water Regulatory Commission (EWRC), which is an independent specialised state body that regulates two sectors - energy and water supply - and plays a very important role in the control and management of these sectors, ensuring fairness and transparency in the relationship between energy and water suppliers and consumers.</li> <li>o Water Supply and Sewerage Associations have been established as legal entities under the Water Act to manage the ownership of assets jointly owned by municipalities and the state (established in 2009).</li> <li>o "Bulgarian WSS Holding" EAD with authorised capital of BGN 1 billion (established 2020)</li> <li>o voluntary association of water and sewerage operators in the Union of Water Operators in Bulgaria, which</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- The state still plays an important role in the functioning of water services.</li> <li>- The governance of the sector is too complex and divided between many institutions.</li> <li>- Complicated institutional framework and political representation in the bodies/companies involved.</li> <li>- Still existing challenges related to the achievement of the objectives of the regulator (EWRC).</li> <li>- The Strategy for the development of the sector for the period 2014-2023 completely lacks a separate part dedicated to human resources and human resources potential is not included among the objectives and priorities.</li> <li>- There is no regulatory framework to ensure the long-term sustainability of the management of water and wastewater operators and to guarantee the availability of skills and expertise.</li> <li>- At the level of the companies (operators), there are many challenges: Quantitative staff shortages in a number of key institutions; staff turnover; unfavourable qualitative and structural characteristics of the staff; poor inter-institutional coordination, especially in the strategic management of the water sector.</li> </ul>



<b>BULGARIA (FCIW PODKREPA)</b>	
<p>unites 42 water and sewerage operators out of a total of 44.</p> <ul style="list-style-type: none"> <li>- The price of the water service is calculated following a complex procedure and depends on its elements realised for the user - supply, disposal and purification.</li> <li>- In the structure of costs, the largest share of total costs for the water supply sector is spent on personnel costs - 40.1% (including remuneration and social security costs), followed by material costs (24.6%) and external services (15.2%).</li> <li>- Established legal and regulatory framework for social dialogue based on EU law and national legislation.</li> <li>- Special positioning of the Union of Water Operators in Bulgaria, whose main objective is to support the implementation of the state policy on water supply, sewerage, drinking water and waste water treatment, as well as to participate in negotiations with the representative organisations of workers and employees.</li> </ul>	<ul style="list-style-type: none"> <li>- A large number of water and wastewater companies in Bulgaria do not cover their operating costs.</li> <li>- Many operators have a revenue efficiency ratio (the ratio of operating costs to operating revenues) above 1.00, and too few companies have an efficiency ratio below 0.90, which makes it difficult for them to use their own funds for investment.</li> <li>- The average level of water losses in Bulgarian water and wastewater companies is 30 per cent of the average level of non-revenue water (NW), which includes both commercial (assumed) losses and physical (actual) losses.</li> <li>- Companies (operators) in general lack the financial resources to invest in the modernisation of the infrastructure.</li> <li>- Low remuneration of employees in the sector (1614 BGN for the WSS industry compared to an average national level of 2173 BGN) in 2023.</li> <li>- Existing technical challenges such as:               <ul style="list-style-type: none"> <li>o Aging water supply networks for surface water sources,</li> <li>o Anthropogenic pollution and background contamination for underground water sources.</li> <li>o Most of the water supply facilities in operation (water intakes, water supply network, pumps, hydrophores, water meters, etc.) were put into operation before 1980 and are made of materials (mainly eternite and steel pipes) whose service life has expired.</li> </ul> </li> </ul>



<b>BULGARIA (FCIW PODKREPA)</b>	
	<ul style="list-style-type: none"> <li>- The deterioration in the quality of surface water and groundwater bodies is mainly due to the insufficient number and capacity of wastewater treatment plants (WWTPs).</li> <li>- Outdated equipment PWTP built and in operation (46% of the population is connected to PWTP) have outdated equipment and urgently need reconstruction and modernization.           <ul style="list-style-type: none"> <li>o Low coverage of sewerage installations: The percentage of construction of the sewerage network is relatively low (61%).</li> <li>o Existence of uneven hydraulic pressure (high or low) in separate areas of the water supply network.</li> </ul> </li> <li>- The information security in terms of the situation (both in quantitative and qualitative terms), events and monitoring is too low for the preparation of full analyses of the infrastructure in the water sector and for making relevant management decisions.</li> <li>- In Bulgaria there is no formally structured Branch Council for the water supply and sewerage sector. In fact, the social dialogue in the water supply and sewerage sector is carried out only in terms of negotiations for branch Collective Labour Agreement (CLA), as well as on separate joint initiatives of the social partners - participation in public discussions the adoption by EWRC of five-year business plans and the related annual prices of the water supply and sewerage service, the organization of annual controversial games for the</li> </ul>



<b>BULGARIA (FCIW PODKREPA)</b>	
	industry (spartaciads), participation in various expert councils related to the adoption of legislative changes concerning the water supply and sewerage industry, development and implementation of individual project proposals.
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>- Regulation in line with the EU Directive on the quality of drinking water and the expected quality of waste water (Directive 91/271/EEC on urban waste water treatment).</li> <li>- The improvement of the regulatory framework can be achieved through the creation of a dedicated separate water and sewerage regulator, seen by social partners as a new simplified regulatory mechanism that does not hinder the normal operation of water companies and does not restrict collective bargaining through restrictions.</li> <li>- Sustainable transformation of the sector while investing in upgrading and retraining of the workforce,</li> <li>- Updating the knowledge and skills of the workforce.</li> <li>- Improve the capacity of human resources in relation to the annual growth of average wages, with an objective to reach at least 4-5% above the average wage growth in the country in the coming years.</li> <li>- Improve the skills of the workforce in the sector, both in terms of directly related skills and in terms of the development of digital literacy.</li> <li>- The principle of cost recovery should be fully integrated into the requirements for</li> </ul>	<ul style="list-style-type: none"> <li>- Unstable political context leading to frequent ministerial changes and subsequent changes in the management of the publicly owned operators.</li> <li>- Political influence on appointments (managerial and otherwise) in state-owned enterprises and regulators, which directly affects the functioning of the water sector.</li> <li>- Lack of consideration of human resource development in the sector in all strategic documents.</li> <li>- Human resources are seen as a number and a cost, rather than the value-adding factor of production that they actually are.</li> <li>- Overemphasis on numerical control in the search for economic efficiency</li> <li>- Poor financial viability and inefficiency prevent water companies from financing and implementing major investment programmes needed to meet compliance requirements and required long-term service levels.</li> <li>- Significant price increases are inevitable in the short and medium term.</li> <li>- Although the long-term projections to 2035 do not show a general trend of scarcity of natural surface and</li> </ul>



<b>BULGARIA (FCIW PODKREPA)</b>	
<p>calculating the final cost of water paid by the consumers.</p> <ul style="list-style-type: none"> <li>- Investment in the replacement of old and depreciated equipment such as pumping units, excavators, trucks, etc. owned and operated by water and wastewater operators.</li> <li>- A - never-ending - reform process in the sector (over the last 20 years in Bulgaria important reforms have been carried out in the water supply and sewerage industry), which also inspires good experiments, namely the establishment of the shared (between local authorities and state) ownership of the water operators in some of the districts (obasti).</li> <li>- Improving the capacity of the organisational structure through the formalisation of social dialogue not only at bilateral level between the nationally representative trade unions in the sector and the Union of Water Supply and Sewerage Operators, but also in relation to the main social partner for the sector - the state - vis-à-vis the line ministries and the Energy and Water Regulatory Commission.</li> </ul>	<p>groundwater resources in the country, there are observed variations in different regions.</p> <ul style="list-style-type: none"> <li>- Environmentally incompatible land use and industrial activity.</li> <li>- High pressure due to large distances between reservoirs and supply areas; direct connections (water supply) to high pressure transit pipelines; lack of pressure reducing valves; oversized pumping stations, hydrophores or water supply network.</li> <li>- Low pressure due to smaller diameters or oversized networks serving many users, resulting in high pressure losses, especially in suburban residential areas; construction close to the reservoirs, which cannot provide the necessary static head due to lack of displacement; numerous leaks in the water supply network.</li> <li>- With regard to information and safety issues, the information available is scattered among a large number of institutions and commercial companies, and in many cases is unsystematised and not updated.</li> <li>- The lack of investment in human resources in the sector is turning it into a limiting factor that can hamper the plans for sustainable development of the sector and the reforms undertaken in it.</li> <li>- Uneven distribution of water resources throughout the country</li> <li>- Variations in the quality of drinking water supplied in some regions.</li> </ul>



<b>ITALY (FEMKA CISL)</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- Digitisation of water network management systems to ensure more widespread and secure control of pipelines;</li> <li>- Increasing attention to the sector by industrial players with the know-how and investment capacity to improve the quality of networks and services for industry, agriculture and citizens;</li> <li>- In areas where the law has been fully implemented, there are large companies able to guarantee a high return on investment in infrastructure and services;</li> <li>- Average level of social dialogue with employers in the sector;</li> <li>- Tariffs for water services are lower than the world average.</li> </ul>	<ul style="list-style-type: none"> <li>- Fragmented management of the integrated water service due to the incomplete implementation of Italian Law no. 36 of 5 January 1994, known as the "Galli Law", which provides for the definition of "Ambiti Territoriali Ottimali" (Optimal Territorial Ambitions - ATO) in order to allow for an adequate size of the management units, to overcome the fragmentation of local management and to achieve economies of scale with a collection area capable of generating revenues to cover management costs and the necessary investments, thus repaying the capital invested;</li> <li>- Low investment in the maintenance of water infrastructure, with water leakage of around 40%, which has also led to Italy being subject to infringement proceedings by the European Union;</li> <li>- Lower investment in the sector than the European average;</li> <li>- Between 6% and 15% of citizens live in areas exposed to severe drought. This situation is particularly worrying because it affects the availability of water resources, which are essential for daily needs and for agricultural and industrial activities. The decrease in water resources is mainly attributed to the effects of climate change. The main causes include reduced precipitation, increased evaporation from water bodies and transpiration from vegetation, all of which are consequences of rising temperatures;</li> </ul>



<b>ITALY (FEMKA CISL)</b>	
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>- Italy's water sector allows for concessions to third parties, mixed public-private partnerships and fully public management, providing flexibility and potential for improved efficiency in the future.</li> <li>- The tariff system regulated by ARERA ensures fair cost recovery and incentivises investment in maintenance, digitalisation and infrastructure development.</li> <li>- Italy possess a high quality groundwater. With 85% of water sources located underground, Italy benefits from high-quality water that is less prone to contamination and in line with European standards.</li> <li>- Water tariffs in major cities such as Milan and Rome are lower than the global average, making water affordable while maintaining quality.</li> <li>- The sector employs around 15,000 workers with a high unionisation rate (60%), providing strong worker representation and stability.</li> <li>- Comprehensive welfare programmes, including supplementary pension funds and integrated healthcare, increase employee satisfaction and productivity.</li> </ul>	<ul style="list-style-type: none"> <li>- Ineffective communication: Italy is one of the European countries with the highest consumption of bottled water, as consumers consider it more controlled. On the contrary, in Italy 85% of water sources are underground: groundwater is always better than surface water because it is less exposed to atmospheric or external contamination.</li> <li>- The sector suffers from significant fragmentation, with over 1,200 managing entities, leading to inefficiencies and delayed infrastructure projects.</li> <li>- Poor infrastructure results in an average water loss of 41.8%, with higher losses in southern regions, indicating the need for significant infrastructure improvements.</li> <li>- Despite high quality tap water, Italian citizens prefer bottled water, making Italy the third largest consumer in Europe, which could undermine investment in public water infrastructure.</li> <li>- Over the next five years, concessions for services covering 14 million people will expire, creating the risk of service disruptions and management challenges.</li> <li>- The employers' association is not fully open to social dialogue, which may hinder effective industrial relations and the implementation of beneficial initiatives.</li> <li>- Financial constraints may limit the ability to invest in necessary resources for water management and social dialogue, especially during economic downturns.</li> </ul>



<b>ITALY (FEMKA CISL)</b>	
<ul style="list-style-type: none"> <li>- There are opportunities to address the significant delays in upgrading wastewater collection and treatment facilities through better management and investment.</li> </ul>	<ul style="list-style-type: none"> <li>- Frequent changes in national and EU regulations can affect the implementation of existing plans, requiring constant adaptation and resource allocation.</li> </ul>

<b>NORTH MACEDONIA (SUTKOZ)</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- There are natural potential reserves of underground water as a basic resource for water supply in North Macedonia.</li> <li>- Laws and regulations are in line with EU directives. The Law on Water regulates the basic principles and rules for the management of water resources and incorporates EU directives in the field of water resources management.</li> <li>- Existence of a law on the pricing of water services, which establishes a financially self-sustaining system of water services that ensures a high standard of service at an affordable price, in line with the objectives of the National Water Strategy of the Republic of North Macedonia.</li> <li>- Institutional positioning - Existence of the Economic and Social Council, a tripartite body established by the Government of the Republic of North Macedonia, in which the social partners also participate (the Employers' Organisation of Macedonia (OEM), the Trade Union of Macedonia (SSM)), which has proved to be an important body for promoting social dialogue between the main stakeholders.</li> <li>- A signed collective agreement for municipal activities in the Republic of North</li> </ul>	<ul style="list-style-type: none"> <li>- Some rural areas still use biologically and chemically untreated water.</li> <li>- Waste water treatment is a key aspect for the ecosystem, as only 22.5% of municipalities have waste water treatment infrastructure - treatment stations.</li> <li>- Low average salary in the sector, making it unattractive to young professionals</li> <li>- In addition to the fact that we have a normative and institutional framework that supports social dialogue as ESS, we have weaknesses in the area of collective bargaining, and it is a process that depends on several factors</li> <li>- The Collective Agreement for Municipal Activities of the Republic of North Macedonia has been signed by the social partners, but there is still a need for its renewal and alignment with the General Collective Agreement for the Public Sector signed on 20.07.2023</li> <li>- A high percentage of water losses, which directly affects the financial situation of public enterprises providing water services.</li> </ul>





<b>NORTH MACEDONIA (SUTKOZ)</b>	
<p>Macedonia, concluded at the sectoral level in accordance with the National Classification of Activities. The collective agreement was concluded between the Union of Workers from the Catering, Tourism, Municipal Housing, Craft and Protective Associations of Macedonia - SUTKOZ (affiliated to the Union of Trade Unions of Macedonia) and the Association of Employers in Public Enterprises (affiliated to OEM).</p>	
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>- Emphasis on achieving 'good status' of all waters through an integrated river basin approach, improving water quality and quantity management in order to achieve integrated water management:</li> <li>- Promoting long-term sustainable use of water resources, aiming at continuous improvement and protection of water ecosystems.</li> <li>- Plans for extensive infrastructure development to better manage surface and groundwater, including the preparation of comprehensive river basin management plans.</li> <li>- Alignment with national and EU regulations, promoting environmental protection and sustainable water resources management.</li> <li>- Enhanced training programmes and technical assistance through ADKOM's training centre to improve the capacity of municipal enterprises, promoting knowledge sharing and technical skills.</li> </ul>	<ul style="list-style-type: none"> <li>- Financial constraints could hinder the ability to invest in necessary resources for water management and social dialogue initiatives, especially during economic downturns.</li> <li>- Increased stress on water resources due to climate change will complicate efforts to maintain effective water management and social dialogue.</li> <li>- Potential changes in national or EU regulations on water management and labour practices could affect the implementation of existing plans and initiatives.</li> <li>- Advances in technology could lead to job displacement, posing challenges for labour relations and requiring effective retraining programmes.</li> <li>- Ongoing privatisation efforts could threaten the material and social position of workers, highlighting the need for active social dialogue to mitigate negative impacts.</li> </ul>



<b>NORTH MACEDONIA (SUTKOZ)</b>	
<ul style="list-style-type: none"> <li>- Continued commitment to collective bargaining to regulate workers' rights, ensure legal protection and improve working conditions.</li> </ul>	<ul style="list-style-type: none"> <li>- Monopoly control and reliance on single entities for water supply can make the system vulnerable to operational failures, leading to potential water shortages or contamination.</li> </ul>

<b>MALTA (GWU)</b>
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Strengths	Weaknesses
<ul style="list-style-type: none"> <li>- Promoting social dialogue in the water production sector is critical for fostering teamwork, addressing issues, and creating mutual benefits for workers and employers.</li> <li>- Social dialogue enhances communication channels between workers and management, leading to better teamwork and collaboration. This is crucial in a technically demanding industry like water production, where coordination can improve efficiency and reduce operational errors.</li> <li>- Effective communication and collaboration are vital for creating a positive workplace environment, improving working conditions, and ensuring sustainable development.</li> <li>- Enhanced Problem-Solving Regular dialogue helps in promptly identifying and addressing issues, reducing downtime and improving overall operational efficiency. It fosters a culture of proactive problem-solving and continuous improvement.</li> <li>- Helping context in terms that Historical water management practices, such as prehistoric rock-cut tanks and Roman villa cisterns, highlight the long-standing importance of water conservation in the region.</li> <li>- The fact that there is the only one provider of water services guarantees that their advanced water treatment technologies provide high-quality service.</li> <li>- The strong government support enhances operational security of water services.</li> </ul>	<ul style="list-style-type: none"> <li>- Malta, one of the smallest and most densely populated countries in the world, faces significant water scarcity due to its geographical location and climate.</li> <li>- The Mediterranean climate, characterised by low rainfall and high temperatures, exacerbates natural water scarcity and is highly dependent on climate change.</li> <li>- <b>The dominance of only one water services provider</b> can cause also weaknesses. The Waterservices Corporation as the the only water utility in Malta benefits from its monopolistic market position, which ensures stable revenues but is an obstacle to the development of competitive market in the sector.</li> <li>- Some employees and management may resist changes in communication practices, which may hinder the implementation of social dialogue initiatives. Overcoming ingrained habits and scepticism can be a challenge.</li> </ul>



Opportunities	Threats
<ul style="list-style-type: none"> <li>- Differences in cultural backgrounds among workers can pose challenges that effective communication and understanding. Misinterpretations and misunderstandings may arise, complicating efforts to foster a unified social dialogue.</li> <li>- Implementing and maintaining social dialogue processes require significant time and resources. This can strain the organization’s budget and operational focus, especially in a sector with tight margins and high operational costs.</li> <li>- Introducing new dialogue mechanisms might initially disrupt regular operations as employees and management adapt to new practices. This transition period can be marked by confusion and reduced productivity.</li> <li>- Organizations like the Water Services Corporation (WSC) have decades of expertise and a skilled workforce. Leveraging this experience can enhance the effectiveness of social dialogue initiatives, ensuring they are well-informed and practical</li> <li>- Open communication encourages the adoption of sustainable practices, essential for managing water resources efficiently, especially in a water scarce region like Malta. It supports environmental stewardship and long-term resource management.</li> </ul>	<ul style="list-style-type: none"> <li>- Monopoly control over water resources can lead to higher prices, reduced service quality, and a lack of innovation. Without competition, the company may lack incentives to promptly improve infrastructure or address customer concerns. Additionally, reliance on a single entity makes the water supply vulnerable to operational failures, potentially leading to water shortages or contamination.</li> <li>- Ineffective or poorly managed dialogue can escalate conflicts, negatively impacting workplace harmony and productivity. It is essential to ensure that dialogue mechanisms are well-designed and managed.</li> <li>- Financial constraints might limit the organization’s ability to invest in necessary resources for promoting and maintaining social dialogue. Economic downturns can exacerbate this issue, leading to cutbacks in dialogue initiatives.</li> <li>- Changes in national or EU regulations regarding water management and labor practices might affect the implementation of social dialogue initiatives. Keeping abreast of regulatory developments is crucial.</li> <li>- The increasing impacts of climate change on water resources can create additional stress, complicating efforts to maintain effective social dialogue. Adaptation and resilience strategies need to be integrated into dialogue processes.</li> <li>- While technology can enhance water production, it might also displace workers. This creates new challenges for social</li> </ul>



	dialogue and labor relations, necessitating careful management and retraining programmes.
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After the presentation of the situation in the individual countries, the table below summarises the common issues observed.



<b>Comparative analysis</b>	
<b>Strengths</b>	<b>Weaknesses</b>
<ul style="list-style-type: none"> <li>- In all the countries covered by the study, legislation and related regulations are in line with currently adopted EU directives.</li> <li>- The alignment with EU directives ensures that water management practices meet high standards of quality and safety.</li> <li>- Strong regulatory frameworks are in place, often enforced by government bodies/institutions that regulate and supervise the sector.</li> <li>- The existence of trade unions and developed collective bargaining practices lead to the conclusion of collective agreements that promote workers' rights and social dialogue.</li> <li>- The institutional structures such as tripartite councils involving sectoral union federations and employers' organisations help to negotiate better conditions for workers.</li> <li>- Advanced water treatment technologies and systems that ensure quality service delivery.</li> <li>- Integrated water management systems and digitisation efforts to improve operational efficiency and monitoring.</li> <li>- Natural reserves of groundwater as an important resource for water supply.</li> <li>- High quality groundwater sources in some regions, ensuring a reliable and clean water supply.</li> </ul>	<ul style="list-style-type: none"> <li>- The structure and institutional organisation of the water sector varies widely between the countries compared, with a variety of institutions (state, municipal and private) in some places and a single company monopoly in others (water monopolies can lead to higher prices, poor service and little innovation, with the risk of water shortages or contamination due to operational failures). This can be a challenge in establishing common practices in the area of social dialogue, and especially in attempts to measure and quantify it.</li> <li>- The governance of water services is often fragmented, leading to inefficiencies and poor coordination.</li> <li>- The political influences and the complex institutional framework make effective management difficult.</li> <li>- Many water utilities struggle to cover operating costs, leading to poor financial viability.</li> <li>- Low investment in infrastructure maintenance and modernisation due to financial inefficiencies</li> <li>- Aging infrastructure, including water supply networks and treatment plants, leading to high water losses and inefficiencies.</li> <li>- Lack of modern equipment and the need for significant investment in technology upgrades.</li> </ul>



<b>Comparative analysis</b>	
	<ul style="list-style-type: none"> <li>- Low remuneration and lack of investment in the workforce, making the sector unattractive to young professionals.</li> <li>- Insufficient focus on human resource development and training in strategic plans.</li> </ul>
<b>Opportunities</b>	<b>Threats</b>
<ul style="list-style-type: none"> <li>- Possibilities for improving the regulatory framework (both at European and national levels) to better support water management and social dialogue.</li> <li>- Potential for the creation of independent regulatory bodies to streamline and simplify regulation.</li> <li>- Investments to replace obsolete equipment and modernise infrastructure can significantly improve efficiency and service quality.</li> <li>- Digitalisation of water network management systems for better control and monitoring.</li> <li>- Strengthening social dialogue mechanisms can improve labour relations and operational efficiency.</li> <li>- Training and capacity building programmes to improve the skills and knowledge of the workforce.</li> <li>- Integrated water management approaches to improve water quality and quantity.</li> <li>- Promoting sustainable water use practices to ensure the long-term availability of resources.</li> </ul>	<ul style="list-style-type: none"> <li>- Poorly managed dialogue can exacerbate social conflicts, damaging workplace harmony and productivity. Effective dialogue mechanisms are essential, but not always easy to be implemented.</li> <li>- Financial constraints can limit investment in social dialogue resources, especially during economic downturns, leading to cutbacks and austerity policy.</li> <li>- National or EU regulatory changes in water management and labour practices can affect social dialogue initiatives and require awareness about the new developments in order to allow social partners to formulate adequate and relevant mitigation measures.</li> <li>- Climate change puts pressure on water resources, complicating social dialogue. Integrating adaptation and resilience strategies is essential.</li> <li>- Technology can increase water production, but can also displace workers, creating challenges for industrial relations that require careful management and retraining.</li> </ul>



## 5. Country-specific conclusions and recommendations

Based on the SWOT analyses of the water supply and sanitation sectors in Bulgaria, Italy, Northern Macedonia and Malta, country-specific recommendations are presented, tailored to the specific policy and action area<sup>4</sup>:

### 5.1. Bulgaria

#### 1. Regulatory framework

Rationalise and simplify the regulatory framework to reduce complexity and improve co-ordination between the various institutions involved. Establish a dedicated (separate) water and wastewater regulator to improve regulatory efficiency and focus.

#### 2. Human resources

Develop and implement a comprehensive human resources strategy focusing on staff development, including continuous training and capacity building programmes. Improve remuneration to attract and retain qualified staff.

#### 3. Financial position

Improve the financial viability of water utilities by reviewing tariff structures to fully integrate cost recovery principles. Seek additional sources of financing, including public-private partnerships, to finance necessary infrastructure investments.

#### 4. Technologies

Prioritise investment in the modernisation and upgrading of water supply networks and treatment plants. Implement advanced technologies for monitoring and efficient management of water resources to reduce losses and improve service quality.

#### 5. Social dialogue and cooperation

Formalise and strengthen the framework for social dialogue through the establishment of a water and sanitation sector council. Enhance cooperation between social partners, including the state, to ensure sustainable development of the sector.

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<sup>4</sup> The following conclusions do not claim to be exhaustive. They are formulated on the basis of an analysis of the national reports submitted by the project partners and focus only on the key priorities of the activity.





## 5.2. Italy

### 1. **Governance fragmentation**

Complete the implementation of the Galli Law to consolidate governance units into Optimal Territorial Ambits (ATO), thereby reducing fragmentation and achieving economies of scale.

### 2. **Infrastructure investment**

Increase investment in infrastructure maintenance and upgrading to address high water leakage rates and comply with EU regulations. Encourage public-private partnerships to leverage industrial expertise and financial resources.

### 3. **Adaptation to climate change**

Develop and implement strategies to mitigate the impacts of climate change on water resources, including measures to increase water savings and efficiency in both urban and rural areas.

### 4. **Public awareness and communication**

Improve public communication efforts to build confidence in the quality of tap water and reduce dependence on bottled water. Educate the public on the benefits of using tap water to promote sustainable consumption practices.

### 5. **Social dialogue**

Promote a more inclusive social dialogue by involving employers' organisations more actively. Improve industrial relations and implement initiatives to improve working conditions and job security in the sector.



### 5.3. North Macedonia

#### **1. Water quality and treatment**

Expand and upgrade wastewater treatment infrastructure to ensure that all municipalities have access to adequate treatment facilities. Address the issue of biologically and chemically untested water in rural areas to protect public health.

#### **2. Financial sustainability**

Ensure the financial sustainability of water services by reviewing pricing models to reflect actual costs and promote cost recovery. Explore opportunities for external funding and investment to support infrastructure development.

#### **3. Human Resources**

Increase the attractiveness of the sector to young professionals by improving wage levels and career development opportunities. Implement comprehensive training programmes to build a skilled workforce capable of managing modern water systems.

#### **4. Social dialogue and collective bargaining**

Renew the collective agreement for municipal activities and bring it into line with national standards. Strengthen the role of the Economic and Social Council to facilitate effective social dialogue and collective bargaining.

#### **5. Technological Upgrading**

Invest in modern technologies to reduce water losses and improve operational efficiency. Develop integrated water management systems to better manage surface and groundwater resources.



## 5.4. Malta

### 1. **Managing water scarcity**

Implement comprehensive water conservation strategies to address the challenges of water scarcity. Promote sustainable practices such as rainwater harvesting and the use of non-conventional water resources (e.g. desalination).

### 2. **Monopoly and competition**

While maintaining the benefits of a single supplier, introduce measures to ensure accountability and prevent complacency. Consider benchmarking performance against international standards and best practice to encourage continuous improvement.

### 3. **Improve social dialogue**

Promote a culture of ongoing social dialogue by overcoming resistance to change and providing the necessary resources. Implement structured dialogue mechanisms to ensure effective communication and cooperation between management and employees.

### 4. **Adaptation to climate change**

Develop and integrate climate change adaptation strategies into water resource management plans. Increase resilience to climate impacts through infrastructure improvements and sustainable resource management practices.

### 5. **Technological innovation**

Leverage the expertise and experience of the Water Services Corporation to implement cutting-edge technologies. Focus on innovations that increase efficiency, reduce operating costs and improve service quality.



## 6. Final Transversal Conclusions and Recommendations

Based on the SWOT analyses developed for Bulgaria, Italy, North Macedonia and Malta, the common conclusions according to each of the topics discussed (initially including variants) allowed us to make the following common recommendations:

### 6.1. Compliance and improvement

#### Transversal conclusions:

**Complexity and fragmentation:** Regulatory frameworks in all four countries show signs of complexity and fragmentation, leading to inefficiencies.

**Need for streamlining:** There is a need to streamline and simplify the regulatory base to improve coordination and efficiency.

**Compliance with EU directives:** Ensuring continued alignment with EU directives is essential in all countries.

#### Overall recommendation:

Ensure continued alignment with EU directives and improve the regulatory framework to increase transparency, efficiency and accountability in the water sector.

### 6.2. Technologies and investment in infrastructure

#### Transversal conclusions:

**Technological modernisation:** Upgrading and modernisation of technologies in water supply and sanitation systems is a common need.

**Reduction of water losses:** Implementing advanced technologies to reduce water losses and improve efficiency is a common priority.

**Monitoring and management:** Improving monitoring and management systems through technological including digital innovation is essential.

#### Common recommendation:

Prioritise investment in the modernisation and upgrading of water supply and wastewater treatment infrastructure to address current deficiencies and prepare for future challenges.

### 6.3. Human Resources Development

#### Transversal Conclusions:



- **Skill Shortages:** All four countries face challenges related to the shortage of skilled professionals in the water and sewerage sectors.
- **Training and Capacity Building:** There is a common need for comprehensive training programs and capacity-building initiatives to develop a skilled workforce.
- **Attracting Young Professionals:** Improving the attractiveness of the sector to young professionals is a shared priority.

**Overall Recommendation:**

- Invest in workforce development through comprehensive training programmes, improved remuneration, and better career development opportunities to attract and retain skilled professionals.

#### 6.4. Financial situation

**Trasversal Conclusions:**

- **Financial Sustainability Issues:** Financial sustainability is a concern across all four countries, with the need for better cost recovery mechanisms.
- **Investment Needs:** Significant investment is required to modernize infrastructure and ensure long-term viability of water services.
- **Funding Sources:** Exploring diverse funding sources, including public-private partnerships, is crucial for financial stability.

**No specific common recommendation.** The issues should be treated according to the national context.

#### 6.5. Wages and labour costs

**Transversal conclusions:**

- **Low Remuneration:** Low remuneration levels is a common issue, affecting the ability to attract and retain skilled professionals.
- **Improving Compensation:** There is a need to improve salary levels and offer competitive compensation packages to enhance workforce stability and motivation.

**No specific overall recommendation.** The issues should be addressed according to the national context.



## 6.6. Information Issues and Security

### Transversal Conclusions:

- **Data Management:** Effective data management and information systems are necessary to support decision-making and operational efficiency.
- **Cybersecurity Concerns:** Addressing cybersecurity concerns to protect sensitive data and ensure the integrity of water supply systems is important.
- **Transparency and Communication:** Improving transparency and communication with the public regarding water quality and service issues is crucial.

**No specific common recommendation.** The issues should be handled according to the national context.

## 6.7. Sustainable Practices

### Transversal Conclusions:

- **Climate Change Impact:** The water sector in all four countries is increasingly impacted by climate change, necessitating adaptation strategies.
- **Water Scarcity and Conservation: Threatening** water scarcity (although in some countries it is only at regional level) and the need for conservation measures are common challenges.
- **Infrastructure Modernization:** Ongoing infrastructure modernization is required to meet current and future demands.

### Overall recommendation:

- Promote sustainable water management practices, including conservation, efficient use, and the protection of water resources to ensure long-term sustainability and resilience to climate change impacts.

## 6.8. Social Dialogue and Cooperation

### Transversal Conclusions:

- **Strengthening Social Dialogue:** Strengthening social dialogue and cooperation between stakeholders, including government agencies, employers and trade unions, is essential for the development of the sector.
- **Formalizing Cooperation:** There is a need to formalize and strengthen cooperation frameworks to ensure effective communication and collaboration.



- **Inclusive Participation:** Ensuring inclusive participation of all stakeholders in decision-making processes is important for addressing sector challenges and achieving sustainable outcomes.

**Overall Recommendation:**

- Strengthen social dialogue mechanisms to ensure inclusive participation of all stakeholders, including government bodies, employers, and unions, to foster a collaborative approach to sector challenges.

By addressing these common conclusions, each country can work towards improving the efficiency, sustainability, and resilience of their water supply and sewerage sectors.



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