

**EQUAL  
AQUA**

**A Framework for  
Creating and Sustaining  
Diverse Water  
Institutions in the  
Danube**

Sarah Keener, Global Thematic Lead Social Inclusion  
World Bank, June 1<sup>st</sup>, 2023





**Equal Aqua**, a global Partnership Platform for Inclusive Water Institutions, to advance the efforts to close gender gaps in **employment** in water writ large.

[www.worldbank.org/equalaqua](http://www.worldbank.org/equalaqua)

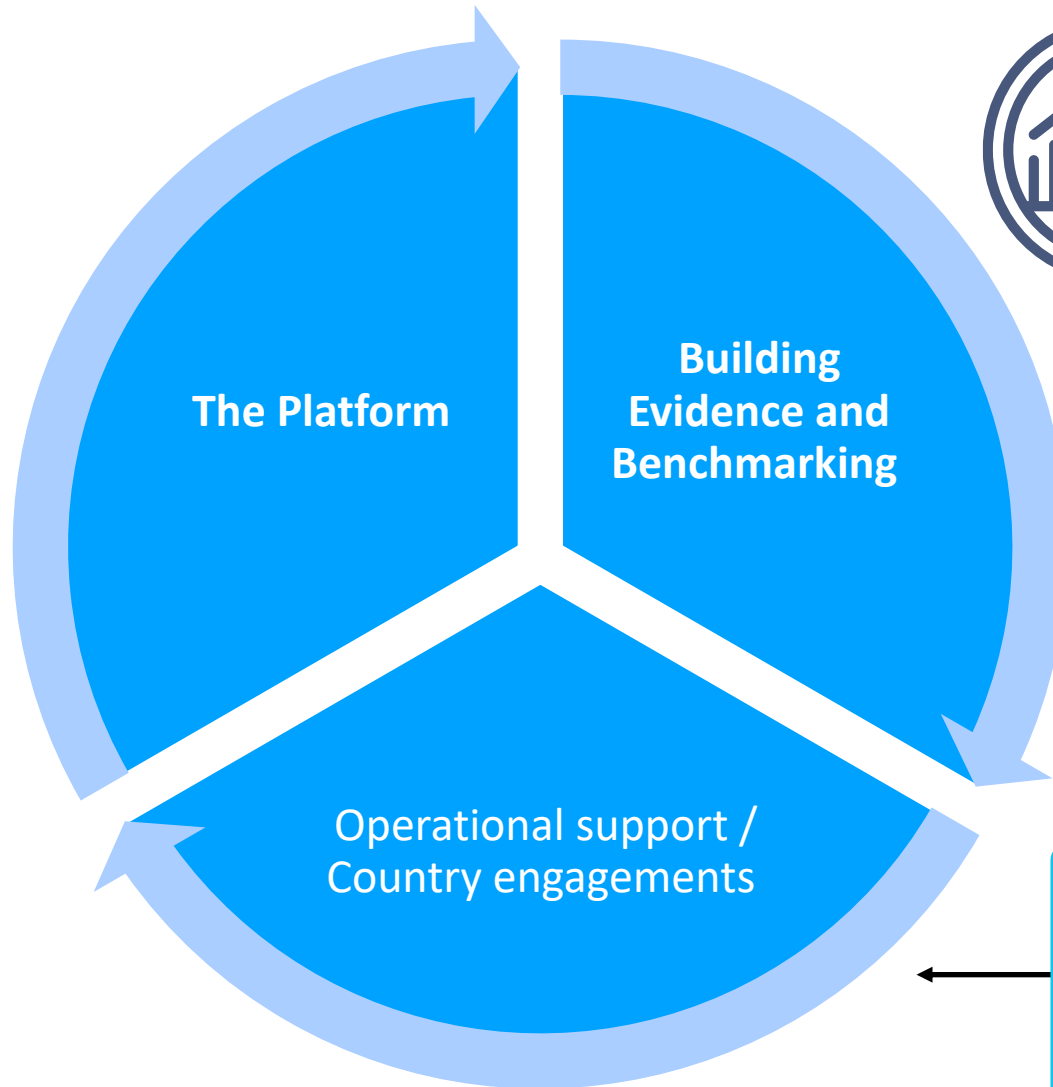


# EQUAL AQUA | Pillars

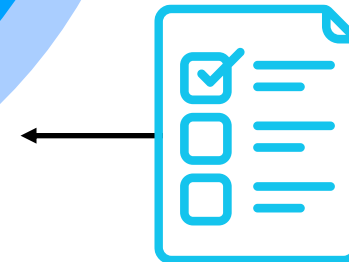
Equal Aqua is guided by three interlinked pillars



EA partners form a community of practice: regular meetings, training opportunities, and knowledge exchanges  
**- 19 official partners -**



HR surveys and scorecards, comprehensive benchmark database, and documenting good practices, and effective interventions  
**- data from 240+ utilities-**



Technical Assistance provided by the Equal Aqua and Inclusion in Water Team, and partners  
**- 58 World Bank projects -**

# EQUAL AQUA | Framework

At each stage of an employee's career cycle, women face barriers as well as opportunities.  
Different utilities will have different issues to address.



## DIAGNOSIS

HR survey  
Scorecards  
Database



## ATTRACTION

- Gender roles marked through social norms
- Divisions of labor
- STEM graduates
- Role models



## RECRUITMENT

- School-to-work transition
- Targeting candidates/job advertisements
- Hiring process



## RETENTION

- Work-life balance
- Family-friendly policies
- Fair wages
- Work environment
- Sexual harassment
- Work facilities and amenities



## ADVANCEMENT

- Training, mentorship, and networking opportunities
- Opportunities for leadership



# EQUAL AQUA

Several challenges affect the representation of women in the water sector, but there are also tremendous opportunities to achieve gender parity.

## **Attraction:**

### *BARRIERS*

- Stereotypes and social norms
- Occupational segregation
- Low levels of female graduates in technical fields
- Lack of role models

### *OPPORTUNITIES*

- Career talks, role models, and other outreach campaigns
- Bring your daughter to work day
- Scholarships for women in STEM studies

## **Recruitment:**

### *BARRIERS*

- School-to-work transition bottlenecks
- Female graduates are not targeted as candidates
- Gender biases in the hiring process

### *OPPORTUNITIES*

- Women engineers recruited directly from universities
- Inclusive job advertisements
- Gender-balanced hiring committee

## **Retention**

### *BARRIERS*

- Lack of work-life balance
- Inadequate family-friendly policies
- Unsupportive workplace environment
- Wage gaps
- Sexual harassment

### *OPPORTUNITIES*

- Maternity, paternity, and parental leave policies
- Separate sanitation facilities for men and women
- On-site lactation rooms
- Regular pay gap assessments

## **Advancement**

### *BARRIERS*

- Fewer training, mentorship, and networking opportunities
- Exclusion from opportunities for advancement and leadership

### *OPPORTUNITIES*

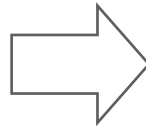
- Transparent promotion process Awards to recognize female leadership in the field
- Equal access to technical and managerial training for all



## SPOTLIGHT on Building evidence and benchmarks – How is data collected and used?

1. **Confidential HR Surveys are distributed to water utilities.** The surveys include questions around:

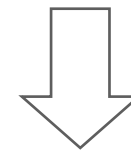
- ✓ **General HR Information** (e.g., the total number of employees disaggregated by gender, the total number of female managers, etc.)
- ✓ **Policies and programs** (e.g., family-friendly arrangements such as flexible work, maternity leave, etc.)
- ✓ **Training Opportunities**
- ✓ **Work environment** (e.g., separate toilet facilities for men and women, the existence of lactation rooms, etc.)



2. **Confidential Scorecards are generated** for institutions to measure progress against previous data and regional and global averages.

### Sample scorecard - excerpt

	Diversity scores in the institution		Average <sup>2</sup> diversity scores across all utilities in:			
			Country X		Sub-Saharan Africa	Global
	2022	2020	2022	2020		
Share of employees in utility that are women	21.0%	24.1%	21.1%	20.2%	19.7%	19.3%
Share of engineers in utility that are women	↑12.1%	10.1%	10.3%	7.0%	13.2%	20.4%
Share of managers in utility that are women	↑20.0%	15.0%	13%	12.2%	16.6%	21.8%

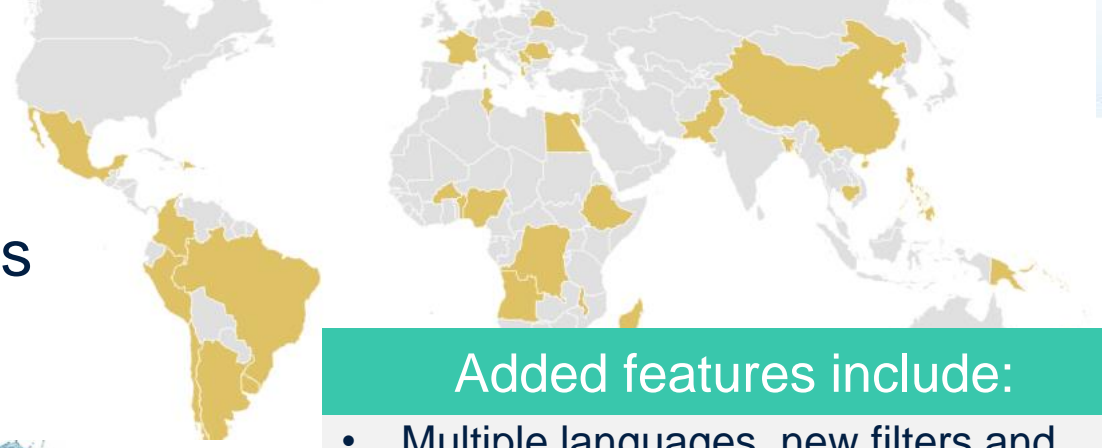


3. **The data is anonymously aggregated** and fed into a public database hosted by Equal Aqua for insights into gender inclusion in water institutions. It is now the largest database of its kind

*Available in Arabic, French, Khmer, Portuguese, Spanish*



Data is aggregated and fed into public database for insights into gender inclusion in water institutions



Added features include:

- Multiple languages, new filters and categories and interactive features
- Added labels and information for a more user-friendly experience

240+  
utilities

48  
countries



## CLOSING GENDER GAPS IN WATER JOBS

Water is a crucial source of jobs, both directly, as an employer in water services, and indirectly, through the economic opportunities that depend on water. Women remain an untapped resource for the water sector - only 1 in 5 utility employees are female. Greater diversity is linked to higher financial performance, innovation and customer satisfaction.

This dataset illustrates gender gaps in employment drawing on survey results from [Women in Water Utilities: Breaking Barriers report](#), and additional surveys collected as part of Equal Aqua platform. Utilities can use it to compare their performance to other utilities in their region and globally.

<https://wbwaterdata.org/breakingbarriers/home/>

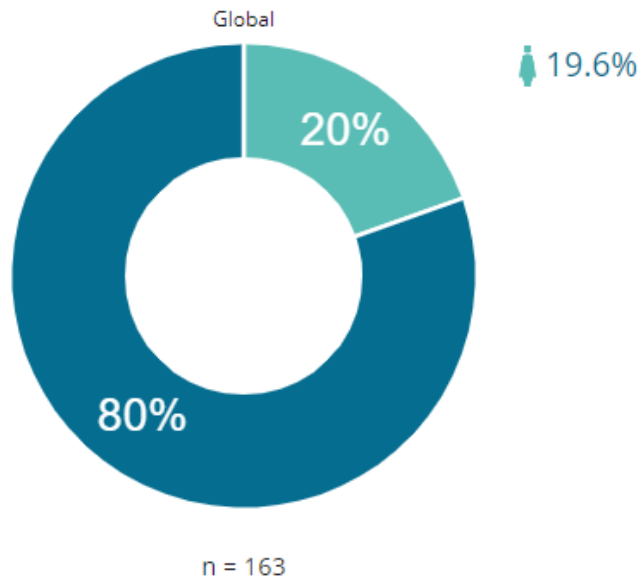
Explore the Tool

About the Data

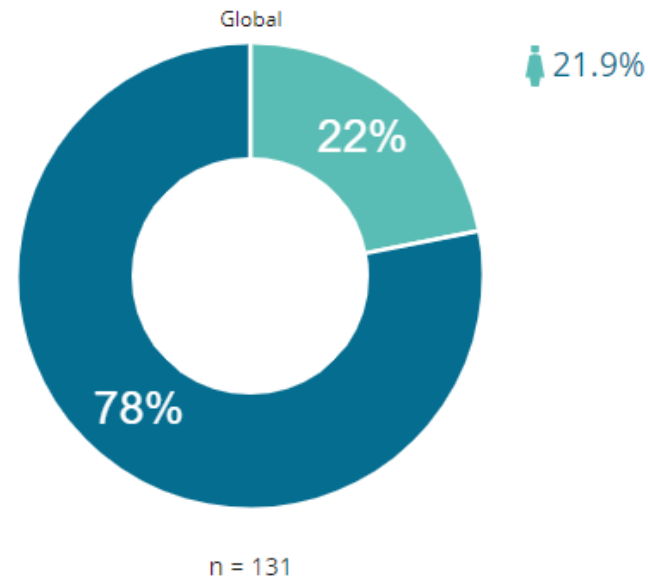
## Women are underrepresented in water and sanitation utilities

### SHARE OF SALARIED EMPLOYEES IN THE AVERAGE INSTITUTION

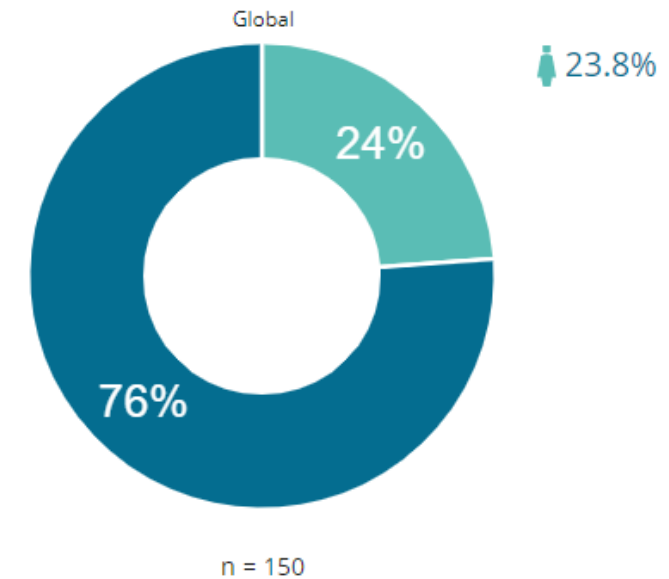
% OF EMPLOYEES THAT ARE WOMEN ⓘ



% OF ENGINEERS THAT ARE WOMEN ⓘ



% OF MANAGERS THAT ARE WOMEN ⓘ



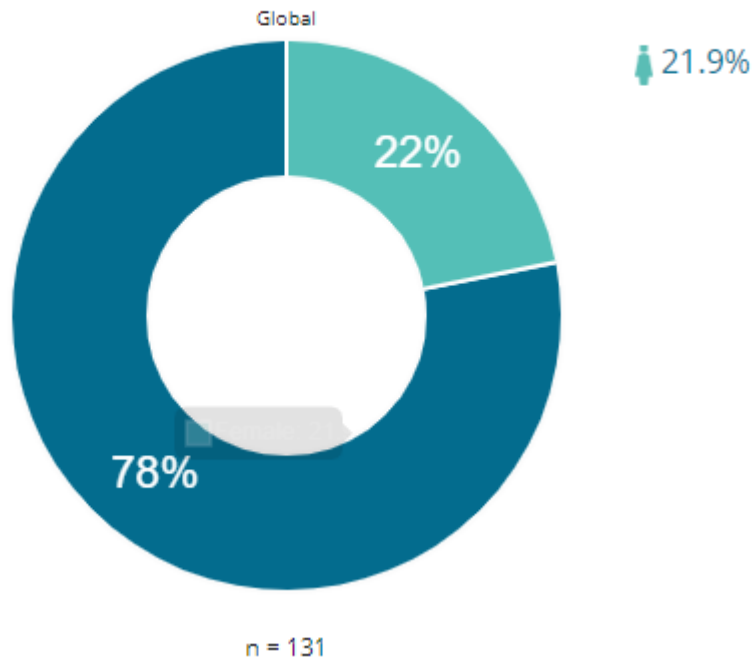
A diverse workforce brings numerous benefits, including increased financial productivity, greater innovation, and improved customer satisfaction.



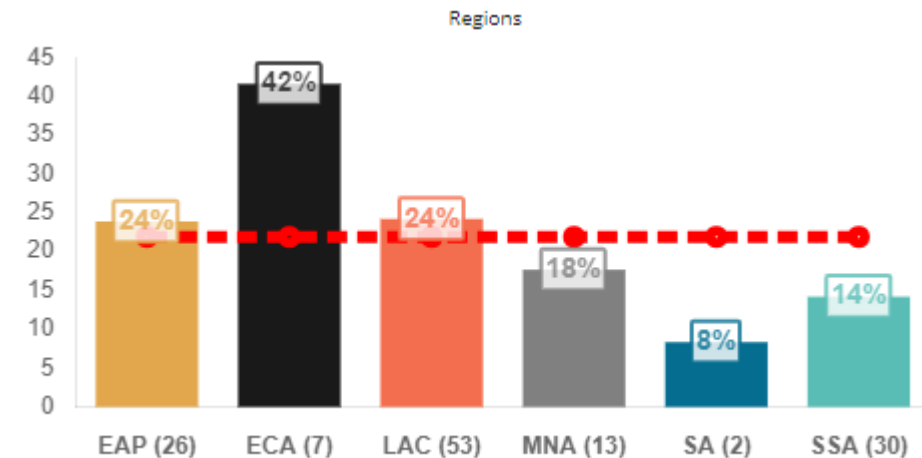


## Share of engineers who are women is around 22% in a utility globally

% OF ENGINEERS THAT ARE WOMEN ⓘ



## There are stark regional variations



Women are often concentrated in administrative positions and are excluded from technical occupations. But occupational segregation is costly.

Eastern and Central Europe

**FILTER RESULTS**

Regions

- East Asia & Pacific (EAP)
- Europe & Central Asia (ECA)
- Latin America & Caribbean (LAC)
- Middle East & North Africa (MNA)
- South Asia (SA)
- Sub-Saharan Africa (SSA)

Size

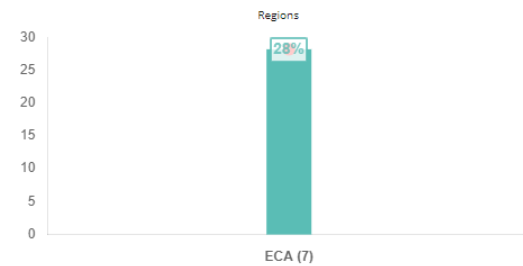
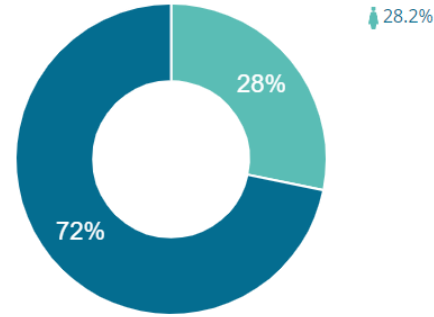
- <200 Employees
- 200+ Employees

**SELECT TO HIDE AREAS**

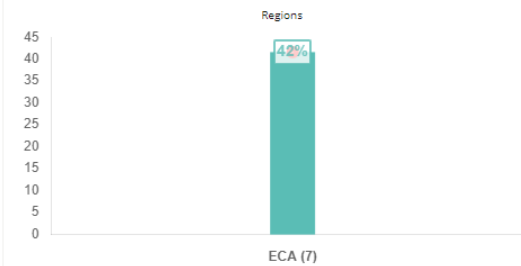
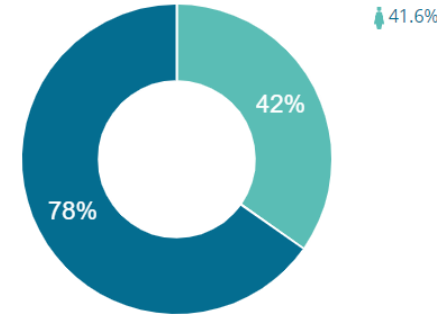
- Representation
- Recruitment & Exit Rates
- Policies & Programs
- Work Environment
- Training

## SHARE OF SALARIED EMPLOYEES IN THE AVERAGE INSTITUTION

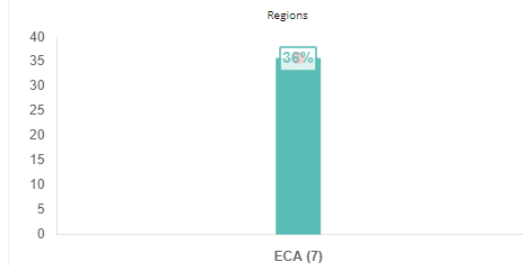
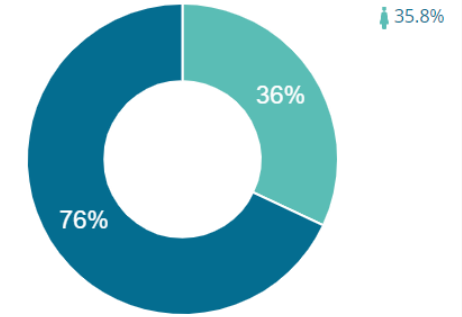
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% OF ENGINEERS THAT ARE WOMEN ⓘ



% OF MANAGERS THAT ARE WOMEN ⓘ

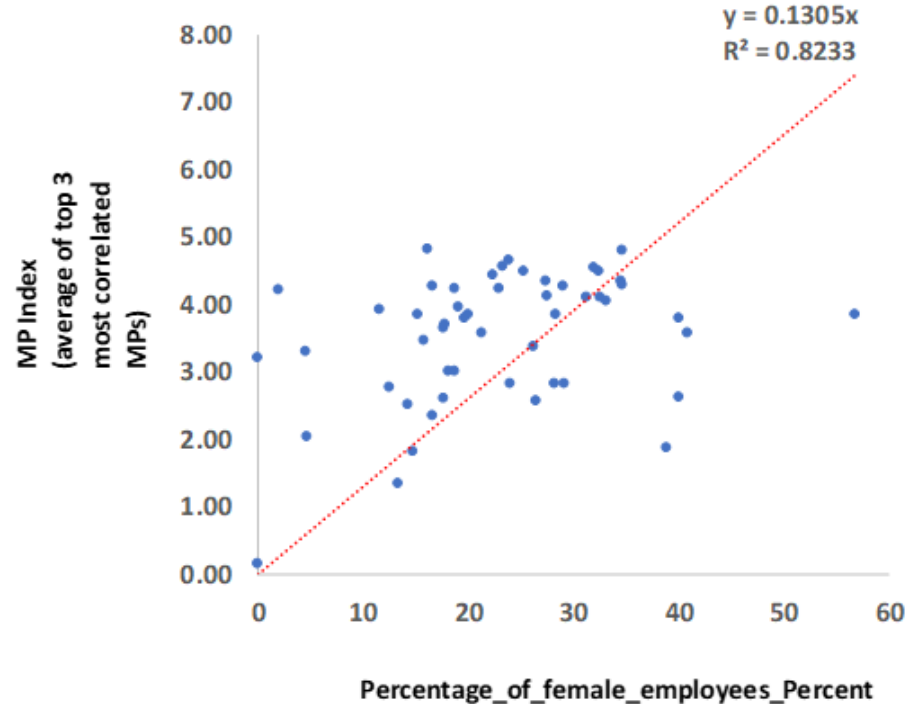


**Only 7 !**

Paucity of *easily* comparable data on women in water utilities. However, this is changing with Danube Water Program benchmarking & IBNET

## Why does comparable data matter?

**Figure 1b: Female employees vs MPs Index**



- The more balanced the ratio between male and female staff in a water utility, the more likely it is to perform better in terms of core management practices (for example, in terms of non-revenue water).
- Earlier analysis (2020) also showed a correlation between other key indicators (% customers with interruptions, % chlorine tests passed, hours of water outages, water quality tests, hours service per day) for larger (250+) utilities.

Source: World Bank staff calculations using NEW IBNET data based on 90 utilities that participated in the beta version.

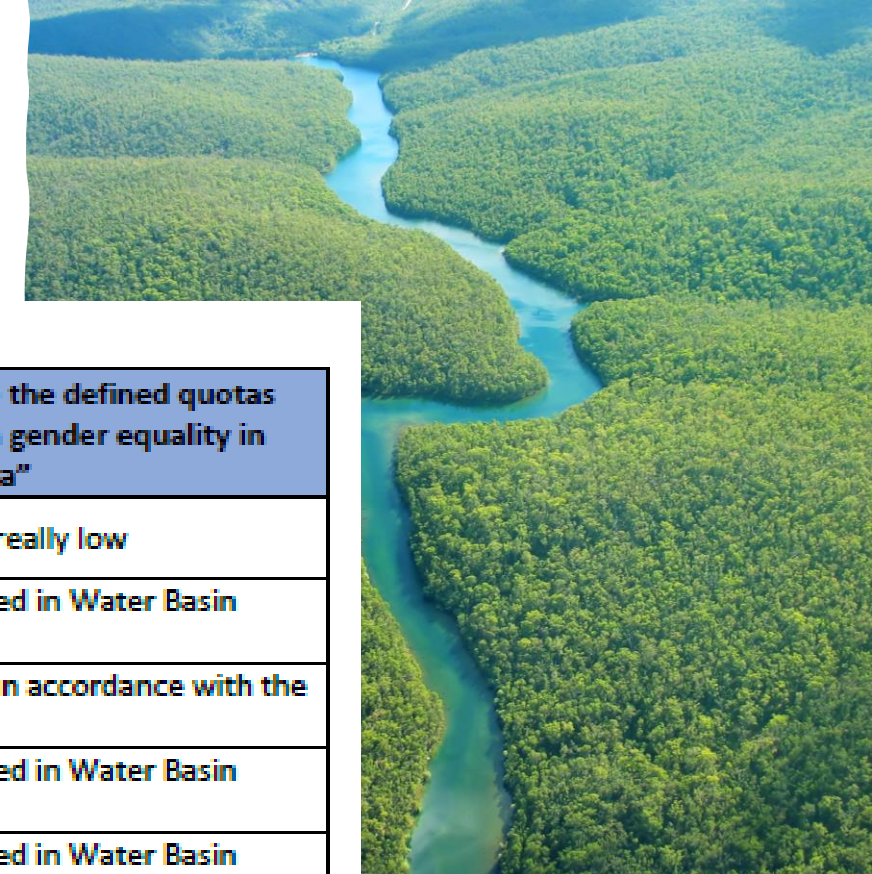
# Water Institutions -

Bey

Table 14: Gender composition of the personnel in each Water Basin Agencies

Gender composition Water Basin Council	Number of members	Men %	Women %	Conclusion according to the defined quotas from Law no. 9970 "On gender equality in Albania"
Drini River Basin	23	72 %	8% 😞	Women representation is really low
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Vjosa River Basin	27	83.4	16.6% 😞	Men dominate in the Water Basin Council

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From "Gender Agenda and Action Plan for Water Supply and Waste Water Sector in Albania 2019-2030", German Federal Ministry of for Economic Cooperation and Development, GIZ, REC-Albania.

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## RECRUITMENT

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- Hiring process



## RETENTION

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- Family-friendly policies
- Fair wages
- Work environment
- Sexual harassment
- Work facilities and amenities



## ADVANCEMENT

- Training, mentorship, and networking opportunities
- Opportunities for leadership

# Where are we in the Danube?

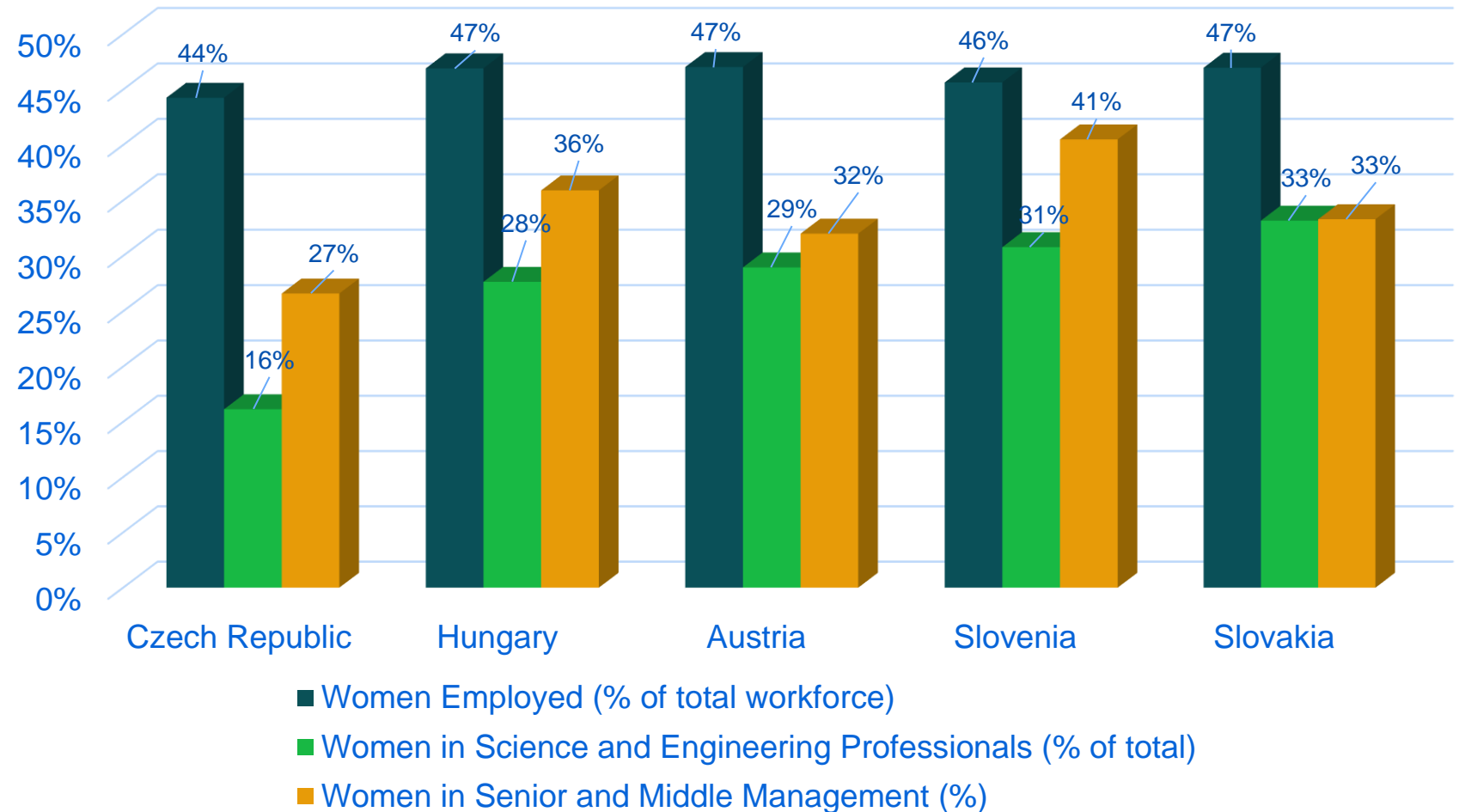


## ATTRACTION

- Gender roles marked through social norms
- Divisions of labor
- STEM graduates
- Role models

Diverse contexts: In some countries rates of female employment are very low = competition for scarce female employees - > **Invest in attraction.**

### Danube Participating Countries: Context



Note: Source of data : ILOSTAT. This is not comprehensive of all technical fields. This includes engineers, physicists, biologists, statisticians, actuaries.

# Where are we in the Danube?

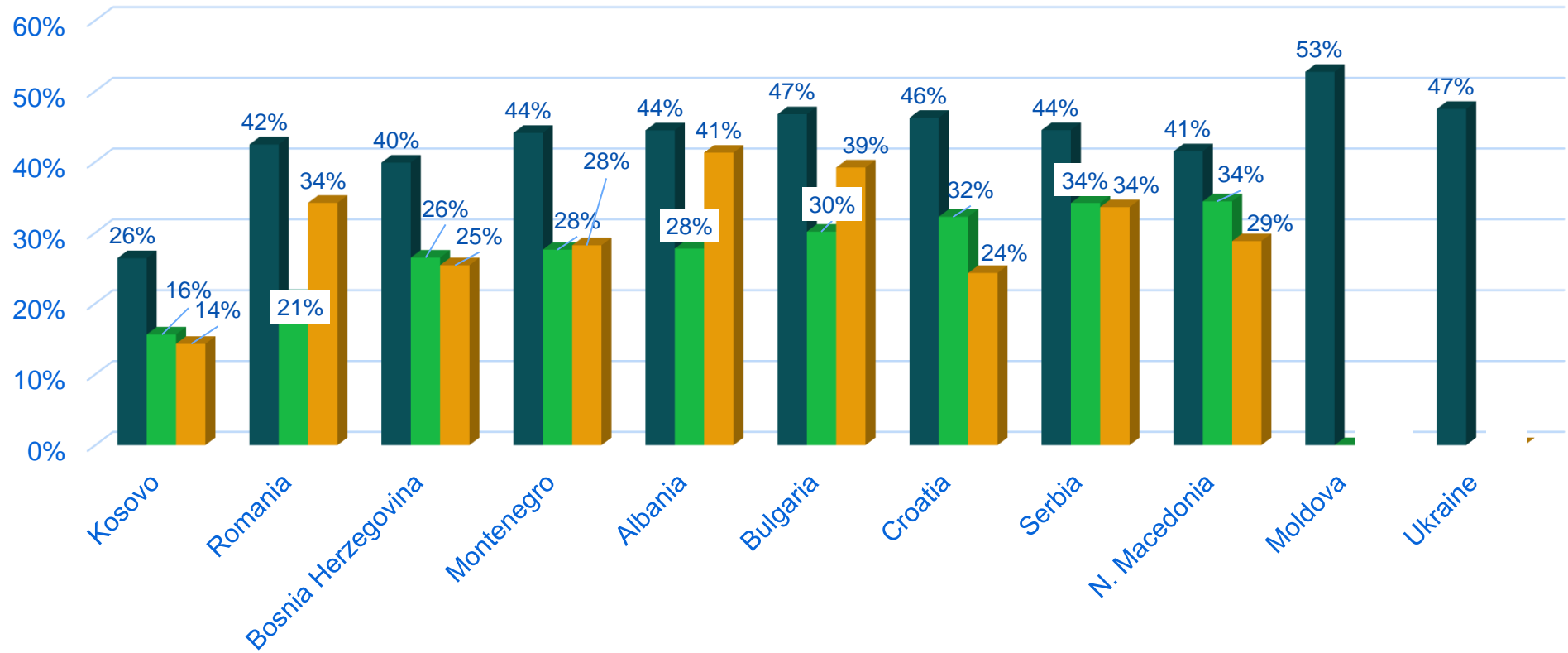


## ATTRACTION

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- Role models

Diverse contexts: In some countries rates of female employment are very low = competition for scarce female employees - > **Invest in attraction.**

Danube Target Countries: Context



- Women Employed (% of total workforce)
- Women in Science and Engineering Professionals (% of total)
- Women in Senior and Middle Management (%)

Note: This is not comprehensive of all technical fields. This includes engineers, physicists, biologists, statisticians, actuaries.

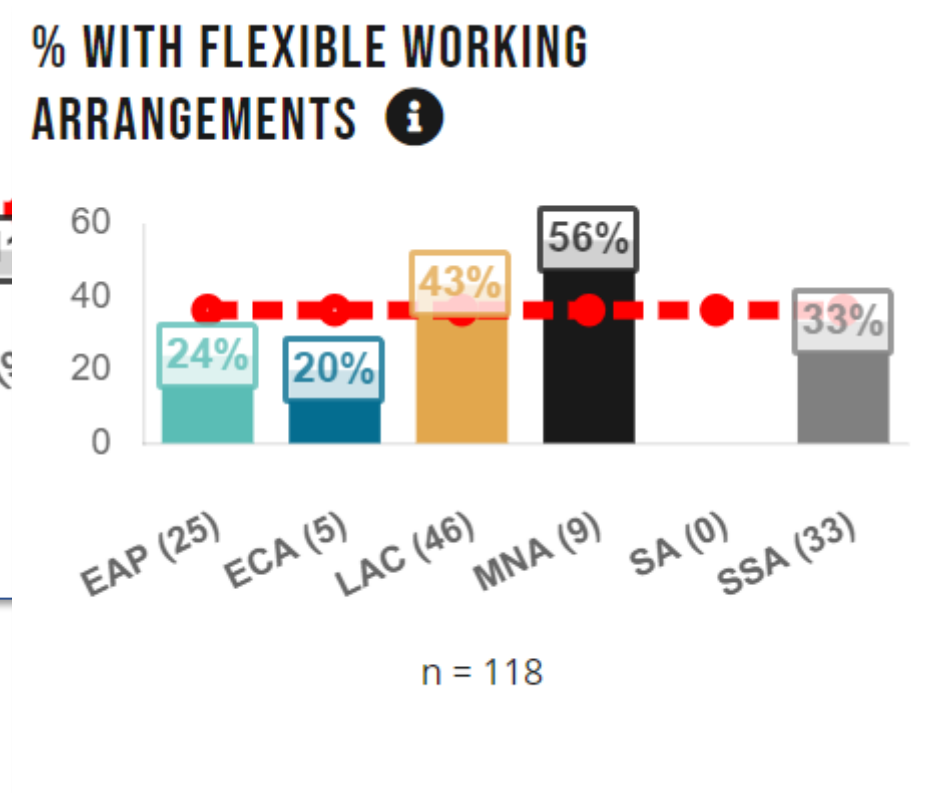
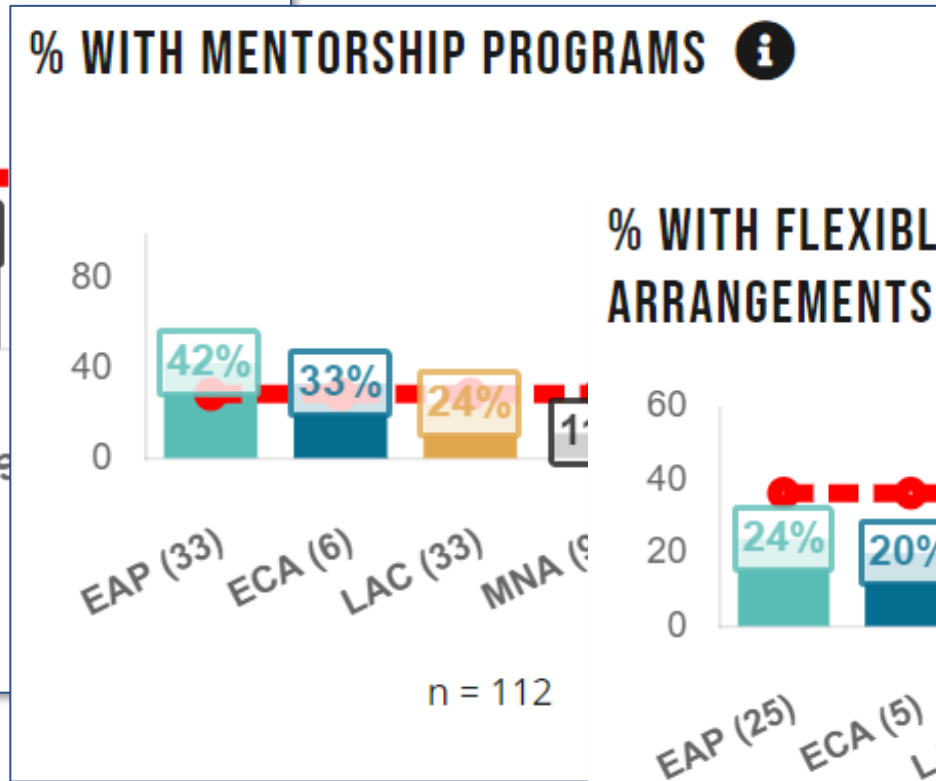
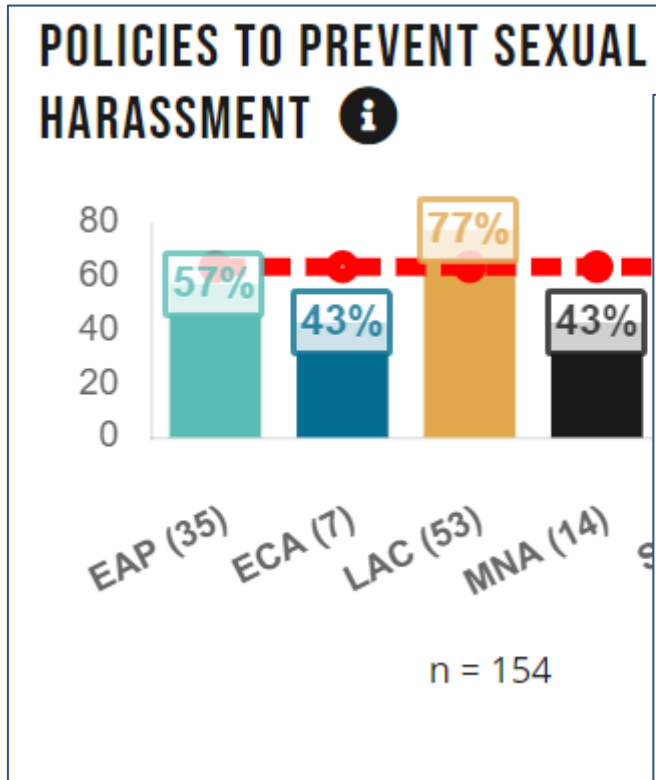
# Where are we in the Danube Water Institutions?

Danube Countries Comparative  
Data





# Where are we in the Danube Water Institutions?



Even among these 7 utilities, some important gaps remain.



## Diversity in the Labor Force: Youth in Danube Water Institutions

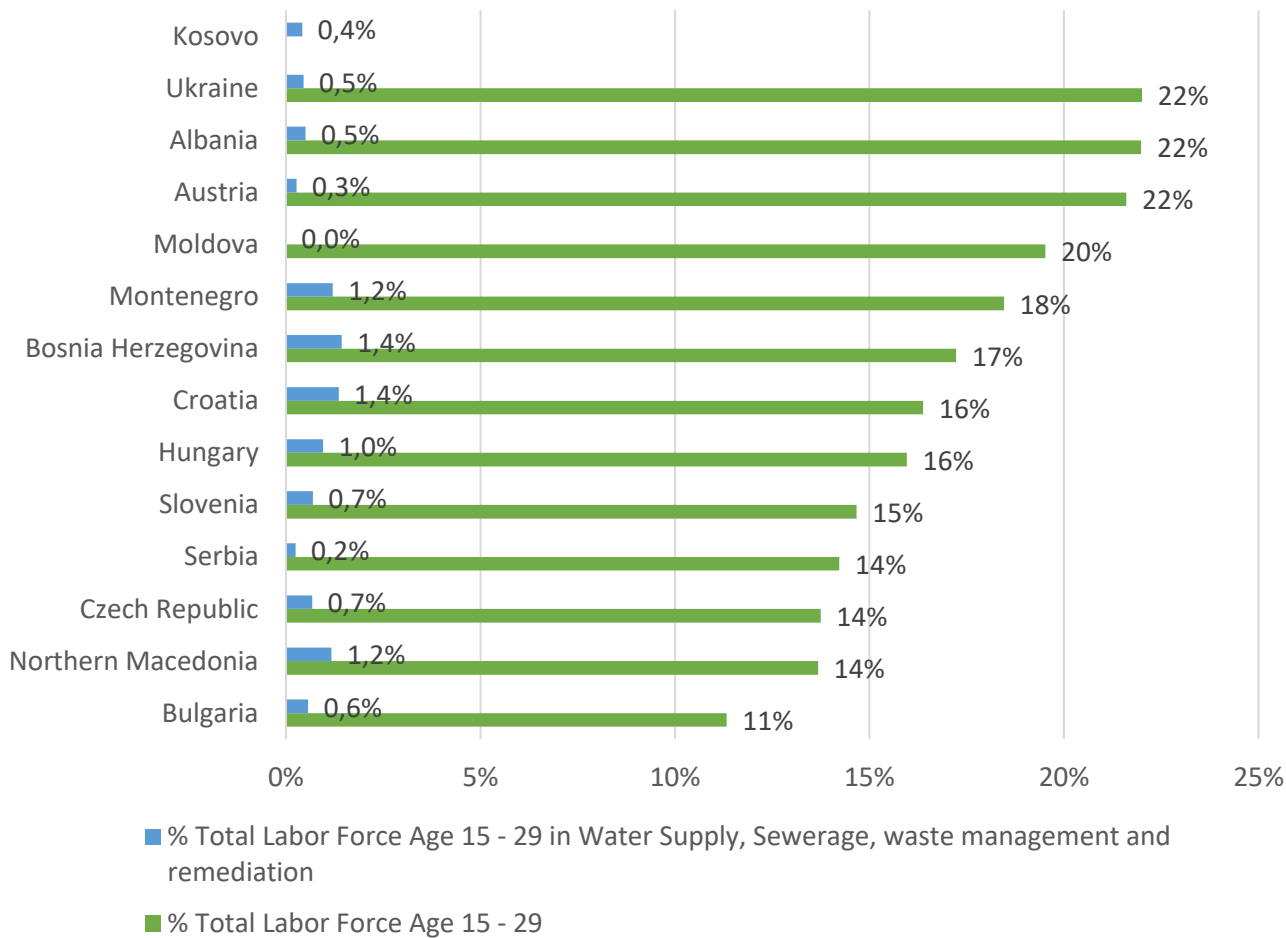
**Challenge:** New technologies and innovation needed for circular economy, water and climate (reuse) demand younger workforce

**Context:**

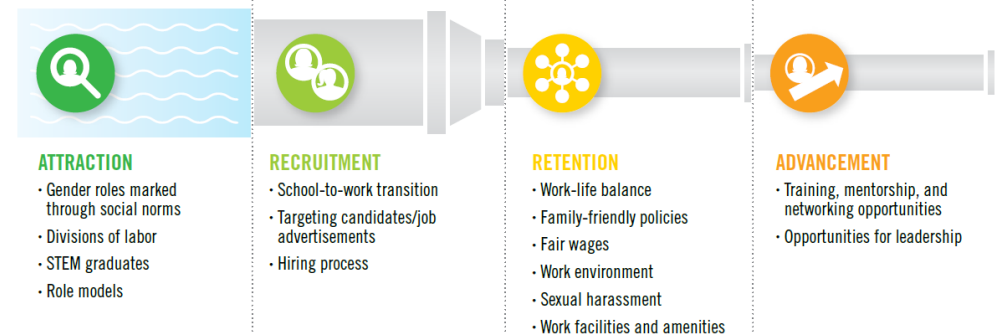
- Massive emigration from Western Balkans [Brain drain]
  - 40% young emigrants from Albania highly educated vs. 6% from Bosnia Herzegovina
  - West Balkans expected to lose 1 million youth in next decade
- 
- Since 1990:
    - Serbia has lost 9% of its population
    - Northern Macedonia 10%
    - Bosnia and Herzogovenia 24%
    - Albania 37%

# Diversity in the Labor Force: Youth in Danube Water Institutions

Youth Labor Force, and Youth Labor Force in WSS+



- Systematic data on youth from water institutions (and on age of water workforce) is lacking
- Most likely facing similar or more challenges as in the US (where, for example, one-third of the water workforce eligible to retire in 10 years)



# Diversity in the Labor Force: Youth in Danube Water Institutions

## Considerations Looking Forward

- Many initiatives

- Danube Transnational Program YOUNIG
- Danube Youth Council
- Youth Policy Forum
- Western Balkans Platform on Education and Training
- Montenegro, North Macedonia, and Serbia have introduced dual education systems
- Youth Guarantee program (Western Balkans)....

- Bringing it together

- Use framework to better track whether efforts to attract, recruit, promote and retain young workers are working
- Benchmarking, diagnostics at water institution level and across countries on workforce age
- Integrate lessons from youth organizations, scale up mentorships, efforts at attraction early on

Thank You!

Extra Slides

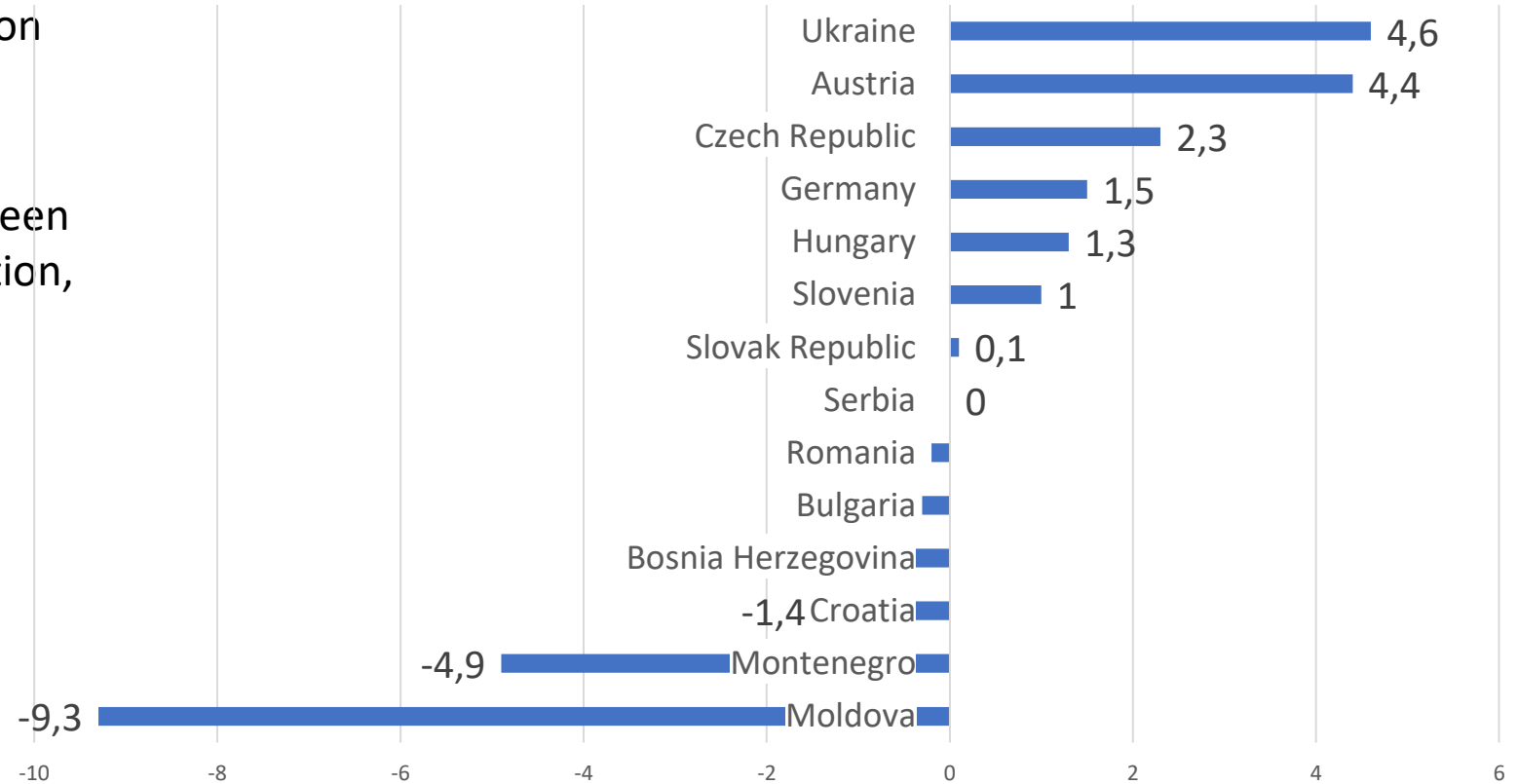
# Danube - Regional Challenges

Aging Population and Aging Workforce: All 14 Danube countries had a higher proportion of +65 in 2018 than in 2010.

+

Shrinking population (-2% between 2010 and 2018) but with migration, differences among countries.

Net Migration per 1,000 inhabitants (2018)



# ATTRACTION

## Barriers:

- Social norms/ stereotypes
- Occupational segregation
- Low levels of female graduates in technical fields
- Lack of role models

## Promising approaches:

- ✓ Career talks, role models, and other outreach campaigns
- ✓ Presentations at schools, colleges, and the community
- ✓ or scholarships for women in STEM studies, are just a few examples.

**“The utility is so male dominated, that within weeks of joining the utility, most women want to leave! The utility needs to hire more women so that a culture is created where everyone feels comfortable.”**

*—Female water quality officer, Ghana*





# RECRUITMENT

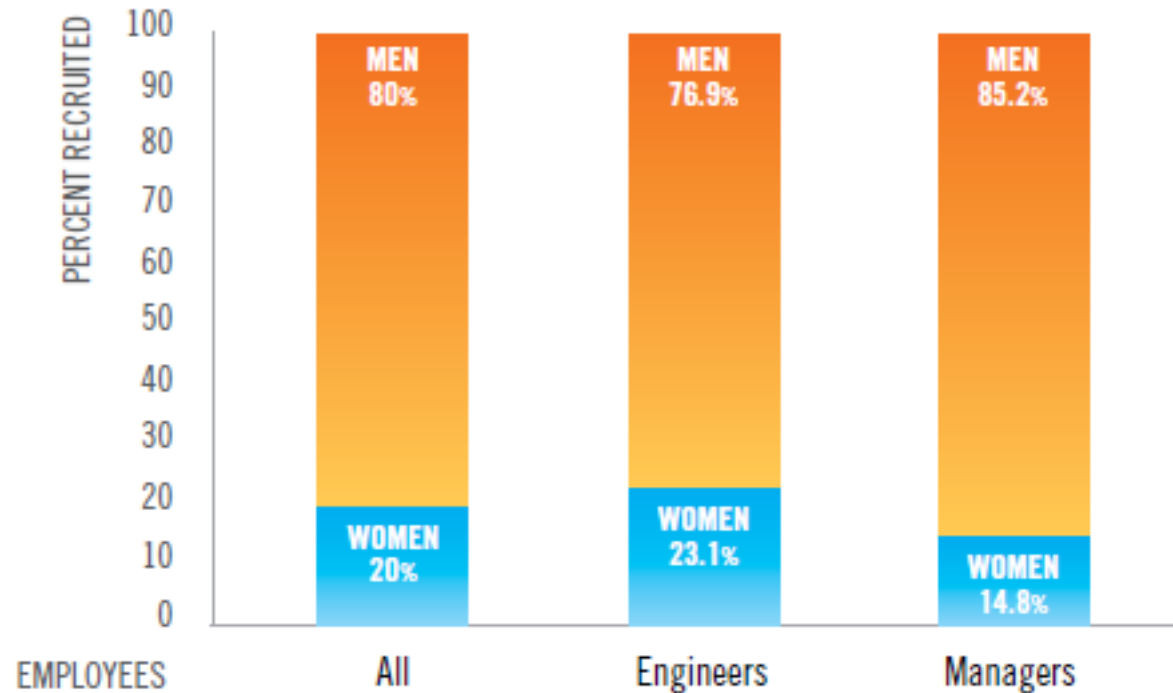
## Barriers:

- School-to-work transition-bottlenecks
- Female graduates are not targeted as candidates
- Gender biases in the hiring process

## Promising Approaches:

- ✓ Women engineers can be recruited directly from universities
- ✓ Internships that have gender-balanced participation
- ✓ Inclusive job advertisements
- ✓ Gender-balanced hiring committee
- ✓ And having targets to expand gender diversity

## Recruitment of Men and Women in Water Utilities in the Past 12 Months, 2018



Source: Responses to utility survey (N: 44 water utilities)

**“It could be helpful to ensure women are aware that there is a potential to apply to these positions—that positions are open, and that they are just as suited to apply.”**

—Female employee, Kosovo

# RETENTION

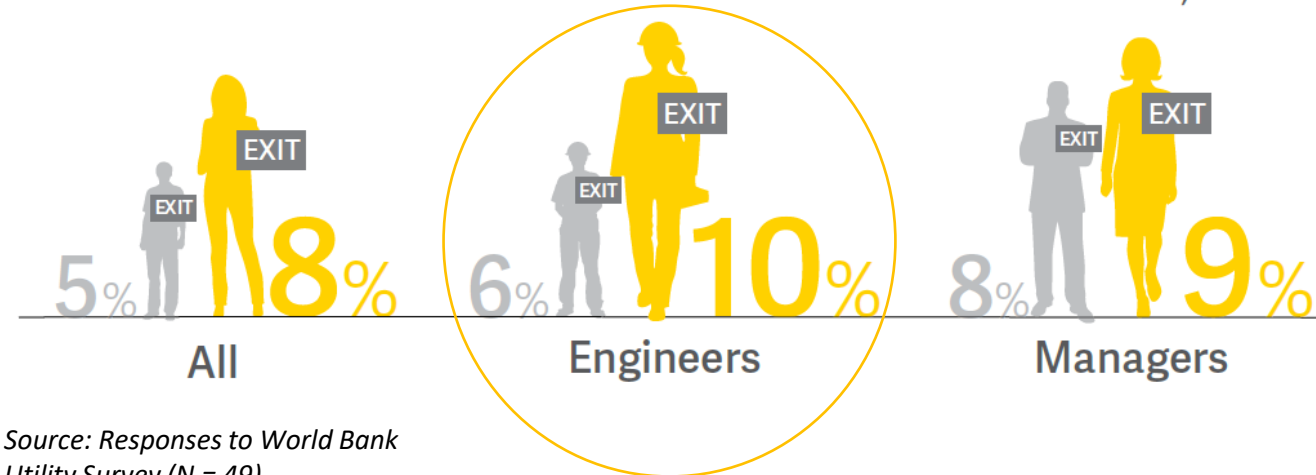
## Barriers:

- Lack of work-life balance
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## Promising Approaches:

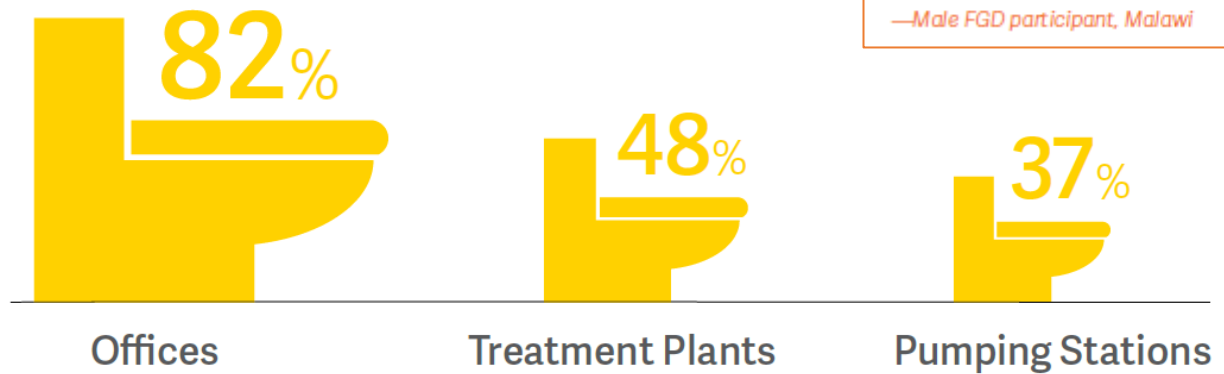
- ✓ Maternity, paternity, and parental leave policies
- ✓ Separate sanitation facilities for men and women
- ✓ On-site lactation rooms
- ✓ Anti-sexual harassment policies
- ✓ And regular pay gap assessments

## MALE AND FEMALE EXIT RATES IN WATER UTILITIES IN THE PAST 12 MONTH, 2018



Source: Responses to World Bank Utility Survey (N = 49).

## TOILETS FOR WOMEN IN WATER UTILITIES



"The utility has no washrooms or changing rooms for men and women, so women change their clothes to work-suits at an open place in the presence of men."

—Male FGD participant, Malawi

Source: Responses to World Bank Utility Survey (N = 60)

## ADVANCEMENT

### Barriers:

- Fewer training, mentorship, and networking opportunities
- Exclusion from opportunities for advancement and leadership

### Promising approaches:

- ✓ Equal access to technical and managerial training for all
- ✓ Mentorship programs and female-run professional networks
- ✓ Transparent promotion process and promotion criteria
- ✓ Or targets for gender composition in leadership positions



**“I had to go back and forth daily from Zagazig to Cairo for the training because I could not be away from home and the children.”**

*—Female FGD participant, Egypt*

# CORE INDICATORS: Performance



## Water Operations

- Drinking water coverage (%)
- Continuity (hr/day)
- % customers 24/7 supply
- NRW (l/Conn./hr or %)



## Sanitation Operations

- Sanitation coverage (%)
- Continuity (hr/day)
- Wastewater Collected and Treated (%)



## Commercial Operations

- Collection rate
- % of Metered connections
- Service complaints resolved
- Drinking water quality



## Financial management

- Operational cost coverage (%)



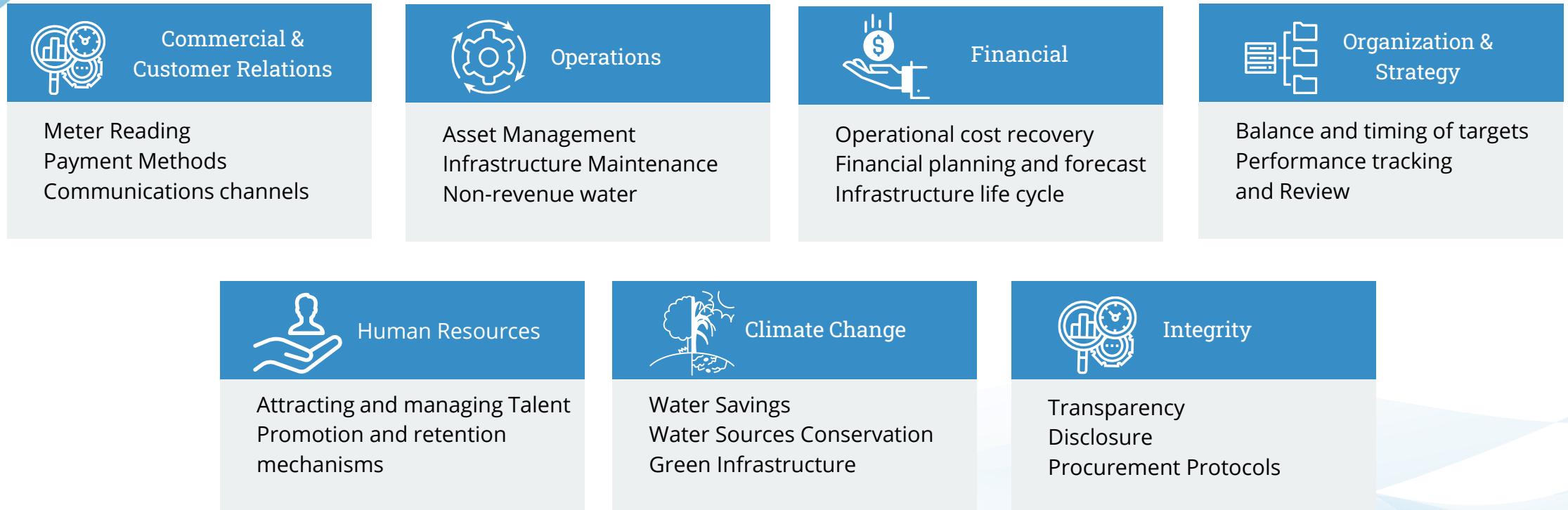
## Human Resources

- Number of employees per 1000 connections
- Percentage of female employees

For specific communities the core indicators will be expanded in the next phase:

- Indicators on sanitation after consultation with CWIS
- Regional subsets of dashboards for partners such as IAWD, PWWA, ESAWAS
- Standard reports on performance improvement
- Change in KPIs over time

# CORE INDICATORS: Management Practices



## Next phase considerations

- Change in Management Practices over time
- Standard reports on Management Practices
- Overviews of performance per practice area

# Albania – Gender Representation in WRM

Table 14: Gender composition of the personnel in each Water Basin Agencies

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Excellent example. Need to scale up cross-country data.

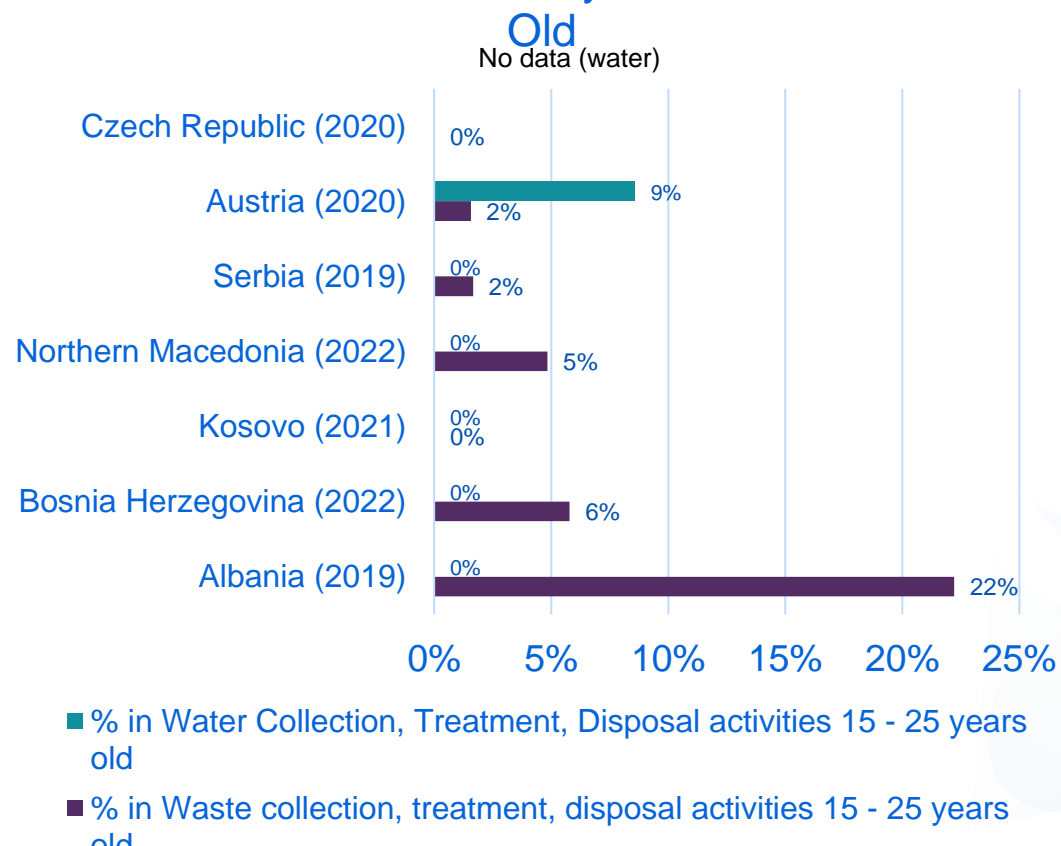
Some other regions just starting to leverage regional river basin organizations to scale up benchmarking on gender diversity.

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From "Gender Agenda and Action Plan for Water Supply and Waste Water Sector in Albania 2019-2030", German Federal Ministry of for Economic Cooperation and Development, GIZ, REC-Albania.

# Diversity in the Labor Force: Youth in Danube Water Institutions

Annual Labor Force by % 15 - 25 Years



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- Most likely facing similar or more challenges as in the US (where, for example, one-third of the water workforce eligible to

