



worldskills  
Germany

# WORLDSKILLS LYON 10.-15. SEPTEMBER 2024

## SKILL 55 WATER TECHNOLOGY

SKILL FOR WATER SUPPLY AND WASTEWATER  
TREATMENT FOR MUNICIPALITIES AND INDUSTRIES







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# WHAT IS WORLDSKILLS?

Individual and societal change is central to what we do.

WorldSkills is a movement. We are a group of people and organizations that together advance the shared social objective of increasing the provision of skills. Our Member organizations cover more than two-thirds of the world's population. Skills change the lives of young people around the globe. They build self-esteem and release potential. Skills create opportunities and connect communities. They are the foundation of economic progress and the building blocks of our world.

WorldSkills and its Members help young people who want to change their lives, and the fortunes of their communities and societies.

Our skills competitions measure excellence, celebrate Champions, and encourage hundreds of thousands of young people to turn their passions into a profession.

Our mission is relevant everywhere — whether you are from a G20 country, or a developing economy.

For more information: [www.worldskills.org](http://www.worldskills.org)



# WHY ARE SKILL COMPETITIONS SO IMPORTANT?



## Young people are at the heart of everything we do

Young people are the beneficiaries of our work, the heroes of our stories of skills excellence, and our default audience.

All Competitors at a WorldSkills Competition are Champions. Just to reach this point they have pursued an arduous journey, from discovering a skill to learning that skill at work or at college. They then progress through local, regional, and national skills competitions to compete for global glory.

These Champions are also the authentic voice of youth in the skills debate. Their experiences inform discussions on a range of global challenges. They regularly address audiences that include decision makers around the world, whether it is at our Conference or other international and national events.

They are supported by dedicated volunteers who mentor and help them on their skills journey.



# WHY PARTICIPATE IN WORLDSKILLS WATER TECHNOLOGY COMPETITION?

## Networking

WorldSkills competitions bring together experts, practitioners and industry leaders from around the world. This provides an excellent opportunity for countries to network and learn from each other.

## Recognition

WorldSkills competitions are recognized as the premier international event for vocational education and training. Participating in these competitions can help to increase the visibility and reputation of a country's vocational education and training system.

## Skill development

WorldSkills competitions provide an opportunity for countries to showcase their best young talent and to identify areas where skills development is needed.

## Benchmarking

WorldSkills competitions can help countries to benchmark their vocational education and training systems against the best in the world, which can inform future policy decisions.

## Innovation and technology

WorldSkills competitions in water technology can showcase latest advancements and technology to countries, allowing them to learn and implement the same in their own region.

Overall, participating in water technology competitions at WorldSkills can help countries to improve their vocational education and training systems and to develop the skills of their young people, making them more competitive in the global economy.





# PROFESSIONS IN WATER TECHNOLOGY

## What do water technicians do?

Water technicians monitor, assess, maintain and repair water infrastructure - infrastructure that serves people, industry, agriculture, ecology and energy production. Water technicians also prevent urban and rural areas from being flooded. They monitor water and solve problems in emergencies such as floods, droughts and water contamination.

## Where do water technicians operate?

Water technicians operate water facilities and water supply systems. They carry out domestic connections for water supply and sewage disposal.

They also work in sewers, sewer systems, wastewater treatment plants and sludge treatment plants.

They may work for industrial and agricultural water users to ensure that water is produced in the quality and quantity needed and that it is returned to nature in good quality.

## What do water technicians need to know?

Water technicians need to understand ecological systems, especially the water cycle. They must have mechanical, biological and chemical skills to ensure proper water and wastewater treatment. They must also have interpersonal skills such as communication, teamwork and stress tolerance.

## What are the responsibilities of water technicians?

Water technicians are able to maintain pumps, repair water leaks and water meters. They conduct daily tasks such as measuring water flow and water quality. They also evaluate control systems and perform standardized electrical repairs. They are able to handle measuring devices such as sensors and photometers.

Additionally, water technicians are trained for emergency situations such as unexpected pollution, rainwater, floods and droughts.



## THE COMPETITION TASKS

Water technicians operate our water facilities and supply systems. They are able to maintain pumps, repair water leaks and water meters. They do day-to-day tasks, such as measuring water flow and quality. They can also evaluate control systems and perform standardized electrical repairs.

Accordingly, for the water technology competition, we always implement different modules and exercises to test these skills.

We divide the competition into four modules: Laboratory/ Process control and automation/ Maintenance/ Report writing. The modules and exercises mimic the daily routines carried out in municipal or industrial wastewater treatment plants. Routines such as daily checks, regular water quality measurements, chemical and biological analyses, parameterization of process control with emphasis on troubleshooting, maintenance and control of various equipment such as pumps, valves and sensors are all integrated in our competition.





# TRAINING FOR CHAMPIONS



To get prepared for WorldSkills we offer two different trainings for experts and competitors.

## TRAINING CAMP FOR EXPERTS

September 2023 in Stuttgart, Germany

## TRAINING FOR COMPETITORS

May/June 2024

WORLDSKILLS LYON 2024 – SKILL 55 WATER TECHNOLOGY







# You got interested?

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