



European Union

Water and Beyond

EU transformative approaches
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Opportunities and Challenges for Preparing Mediterranean Youth
for the Future Water Sector

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Gap Analysis: Key Results

- **Four bottlenecks exist** for matching the correct skill set with the required water job. These include:
 - A human resources shortage for specializations in water,
 - A difference in qualifications needed pending on a rural vs. urban setting,
 - A lack of incentives for workers, and
 - Lack of coordination between industry needs and supply from educational institutions.



Gap Analysis: Key Results

- **Low unemployment rates of Mediterranean youth:** the MENA region is made up of 200 million young people (between the ages of 18-24 years). However, despite a large youthful population, unemployment rates of this age demographic are the highest they have been in nearly 25 years, reaching 30% in 2017. Additionally, youth in the region often undergo a delayed transition to work post graduation.
- **Global trends in water sector job** availability show an uptick of data related jobs, as well as wastewater jobs detecting COVID-19



Gap Analysis: Key Results

- **Stimulus packages** to support jobs and the water sector with the onset of COVID-19 include economic recovery packages.
 - The Green Deal offers various youth employment skilling opportunities in preparation for a new green economy
 - In response to COVID-19 many countries are offering financial support for WASH initiatives in various developing countries to ensure all communities have access to safe water and soap for hygiene and handwashing. This in turn is providing jobs.



Gap Analysis: Key Results

Given the onset of COVID-19, additional **new skills related to digital technologies centered around water quality monitoring** are expected to be in demand. These skills are below:

- Data Science: for water conservation and city planning
 - Smart metering and sensors (internet of things)
 - Platforms for better engaging home users to their water use
 - Social platform for engaging individual water users, with the goal of conservation
 - Developing models on water usage



Gap Analysis: Key Results

Given the onset of COVID-19, additional **new skills related to digital technologies centered around water quality monitoring** are expected to be in demand. These skills are below:

- **Alternative Water Service Delivery:** Due to an increase in contactless delivery of goods and services, in countries where piped water is not as accessible, servicing water delivery in a contactless way is necessary during pandemic conditions and government regulations of social distancing.
- **Technology Design to detect COVID-19 in water resources:** Through the development of new technologies, the detection of COVID-19 can now be detected in wastewater streams to help indicate where large outbreaks might be occurring.



Survey Results

Youth perceptions on skills required for water jobs of the future:

- **Technical skills included:** spatial analysis (Arc GIS and other software), big data analytics, machine learning, literacy in digital and online platforms, technical writing and ability to publish, systems thinking, water diplomacy, water law, water investment, and ability to understand complex systems.
- **Other skills** include creativity, critical thinking, interpersonal skills, international experience, ability to work in groups, remote working skills, innovation, management skills, leadership, communication, and languages.





Key Takeaways

- Areas of entrepreneurship acceleration in 2020 include technology based startups as well as those focused on agricultural production. Innovations in businesses that recycle waste and/or where the conservation of natural resources, like water for agricultural production, are prized.
- The role of systems thinking and understanding the interconnections between water and other interconnected sectors was highlighted as an important skill set for entering the water sector job market.
- Panelists highlighted non-traditional skills for entering the job market to include leadership, and creativity.
- The role of volunteering and community engagement was highlighted as important to encourage of youth who are building the required water sector job skills



Policy Recommendations

1. It is recommended the UfM secure youth employment training opportunities and funding provided through investments programs like the European Youth Guarantee
2. It is recommended that the UfM utilizes financial and personnel resources proposed from the European Social Fund to help reskill, in preparation for jobs in the green economy, its UfM member country youth that belong too to the European Union
3. Support peer-to-peer youth mentorship programs to support in sharing experiences and skills
4. Develop small grants to support innovation and entrepreneurship among youth in the water sector



Policy Recommendations

5. Encourage academic-private sector partnerships to ensure internship and training opportunities for young and early career professionals in the water sector
6. It is recommended that the UfM seek opportunities from the Green Deal for tracking skills competence of youth pursuing a career track in the water sector
7. Support water youth organizations in the region through organizing facilitated webinar series and seminars targeted at building awareness on topics related to the water sector
8. Develop training opportunities specifically in spatial analysis (such as Arc GIS), data analysis, and literacy in digital and online platforms.



Potential Next Steps

- Develop Capacity building workshops that can be replicated on the themes highlighted in the survey results including systems thinking, sustainable development, leadership, entrepreneurship development, the Water-Energy-Food Nexus, and digital skills
- Build partnerships between water and youth organizations in the region and others globally to facilitate knowledge exchange and transfer
- Research and Gap analysis of worldwide, and Mediterranean specific, online training opportunities that help develop the skills required for youth in the water sector

Thank you very much!



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