

## WETSKILLS WATER CHALLENGE – AN INNOVATIVE APPROACH OF EXPERIMENTAL LEARNING AND NETWORKING FOR WATER STUDENTS AND YOUNG PROFESSIONALS

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### **Abstract**

In a fast changing world that becomes more internationally oriented, Young Water Professionals have to train competences for their future (international) job. Competences as teambuilding, international cooperation and transdisciplinaries are crucial for the new International Water Professional. But using new media, business models (to prove the financial viability of an idea) and presenting to the point and attractive are an added value as well.

How can you train them better than experiencing these vital elements? That is what the Wetskills Water Challenge is about: experimental learning. The Wetskills Water Challenge is a two-weeks programme for students and young professionals with a passion for water from all over the world. They meet in a country and work in transdisciplinary and transcultural teams on water-related topics. The main challenge: develop as a team your own innovative and out-of-the-box solution for you water challenge. The study cases are provided by case owners: companies/organisations with a dedicated challenge in the local situation where the Wetskills is held. These concepts are presented during a formal event through an ice-breaking and energizing session, where the cooperation between the Dutch water sector and the partner-country is showed and positioned. It provides opportunities for generations to integrate, water issues to be challenged and disciplines and cultures to be intertwined.

Wetskills focusses at real-life challenges, strongly linked to the water sector. The so-called case owners are both small and large companies, governmental and non-governmental organisations, knowledge institutes or a consortium of more than one organisation from the water sector of The Netherlands and/or partner-country(ies). The organisation formulates the study case for one of the teams existing of four to five participants.

### *Proven concept with Worldwide events*

Wetskills has been organised in more than ten countries all over the world: China, Indonesia, Oman, Israel, Egypt, Morocco, South Africa (2x), Mozambique, Romania, The Netherlands (2x) and Canada.. Since 2010, Wetskills attracted more than 250 participants from more than 50 international universities and organisations.

### *Wetskills-South Africa*

During the WISA conference in Cape Town (2012) and Nelspruit (2014), the Wetskills organisation have been organising a Wetskills Water Challenge together with WISA, SA YWP and the 2014 edition with Randwater Young Professionals.

### *Summary*

- Transdisciplinary and transcultural cooperation in practice
- Integration of students, Young and Senior professionals within the Water sector
- Real-life challenges provided and assisted by the sector partners
- Informal and energizing ice-breaker during a larger formal event
- Positive PR for the organising partners and involved organisations
- Link between universities and working field

- Follow-up activities and business
- Proven concept in more than ten different countries worldwide

*The paper includes Wetskills working activities, results and applicable quotes. Meanwhile potential follow-up activities and the next Wetskills-South Africa 2016 (WISA, Durban) will be discussed.*

**Keywords:** experimental learning, high-level presentations, real life cases, Water Sector, students, Young Water Professionals, South Africa, The Netherlands

**Topic:** Capacity development & Training

## **Background**

### *Why Wetskills?*

In the Netherlands, the structure of education in the water sector has been under continuous development. It is always a struggle to meet the inflow of fresh water professionals with the demand of the sector. Meanwhile the sector changes and innovates, so continuous (lifelong) development of professionals and the development of education are of great attention. In short, this means attention for water in primary schools, awareness for technical studies in the Secondary school, the promotion of water-related studies at vocational schools, colleges and universities and energizing to enter the water sector itself, while someone is studying a water-related study. Besides initial education (from primary school till university) provides the inflow of professionals is generic knowledge on water. For practical water expertise, dedicated training is necessary to continue lifelong development.

This maintain this structure of education and improve its quality led the Netherlands to develop a Human Capital Agenda, a top sector policy that stimulates smart cooperation between water sector businesses, government, colleges, and universities. The Human Capital Agenda aligns education with labor market requirements and advances the skills of current employees.

Wetskills focus on students (final Bachelor and Master), fresh graduates and young professionals (PhD amongst others). Wetskills aims at attracting participants from various universities / organisations in order to get diversity in the Wetskills group. Based on this, connections between universities and/or organisations will be established or strengthened.

Wetskills trains participants in such skills as international water issues, transcultural awareness, teambuilding, presentation skills, self-initiative and water sector knowledge. These are vital competences for the future water professional, who has to work in an international, cross-sectorial environment.

## **Method**

The Wetskills Water Challenge is an innovative approach of authentic learning and networking within the global water sector. For two weeks, university-level students and young water professionals work in multidisciplinary, transcultural teams to develop innovative solutions for local water challenges posed by organizations. The participants are from various universities and/or organisations. They have different backgrounds and stages in their (study)career. The teams are totally mixed, although the participants can give their preference for the case.

The event focuses on real-life challenges, strongly linked to the water technology sector with case studies provided by companies, knowledge institutes, nongovernmental organizations,

and governments; the so-called case owner. Each team must find a creative and applicable solution for their case owner and present it with a pitch and poster presentation at a high-level, international event. Wetskills events are organized in various host countries, based on both the interest of the country and the relationship with the Dutch water sector. The challenge topics are based on the case owners that support the Wetskills event and differ per event.

The program shortly includes the following steps:

1. Teambuilding & social events (come together, ice-breaking)
2. Site visits (water-related sites)
3. BrainHurricane (speed date session with external experts)
4. Working sessions (working together in teams, supervision)
5. Training business wise presenting (Pitch and Poster)
6. Preparation for formal event
7. Finals (with Pitch presentation, interactive Question & Answering and Poster market)
8. Awarding session (high level stage)

## Results

### *Wetskills in Southern Africa*

Southern Africa is a region where many Wetskills participants have been attracted from. In total 42 students and Young Water Professionals has participated in Wetskills. Wetskills has organized two editions in South Africa (during WISA conference in Cape Town in 2012) and Nelspruit in 2014) and Mozambique (launch of PLAMA, Mozambican Water Platform in 2013). Moreover 11 students and young professionals participated in one of the two Wetskills events in The Netherlands, held during the Amsterdam International Water Week in 2011 and 2013.

### *All events*

Last five years, the Wetskills organization initiated and organized fifteen Wetskills Water Challenges in twelve different countries. Two other events have been prepared and will be executed at the end of 2015. For 2016 and 2017 already five events have been identified and are in the feasibility phase.

Since 2010, Wetskills has attracted more than 250 participants from more than 50 international universities and organizations at events in: China, Indonesia, Oman, Israel, Egypt, Morocco, South Africa, Mozambique, Romania, Netherlands, United States, and Canada.

The finals of the fifteen organized Wetskills Water Challenges were at:

1. World Expo 2010 Shanghai in China
2. 400-year Economic Relations in Morocco (2010)
3. Amsterdam International Water Week in The Netherlands (2011)
4. Delta Summit in Indonesia (2011)
5. Royal Visit of the Dutch Queen in Oman (2012)
6. WISA Conference in South Africa (2012)
7. Bilateral Meeting of Egyptian and Dutch Experts in Egypt (2012)
8. ExpoApa Water Exhibition and Conferences in Romania (2013)
9. Launch of PLAMA - Water Platform in Mozambique (2013)
10. International Water Week / Industrial Leader Forum in The Netherlands (2013)
11. Water Seminar Wittenberg Council - Official Dutch Government Delegation to Israel, Headed by Dutch Prime Minister Rutte (2013)
12. WISA Conference in South Africa (2014)
13. Canadian Water Summit in Toronto (2014)

14. ExpoApa Water Exhibition and Conferences in Romania (2015)
15. Milwaukee Water Summit in United States (2015)

Next Wetskills events have been prepared and will be executed:

16. Amsterdam International Water Week in The Netherlands (Nov 2015)
17. Envirotech Asia in Ghandinagar, India (Dec 2015)

These editions are in preparation with an announcement for participants and case owners:

18. WISA Conference in South Africa (May 2016, planned)
19. NEWIN Water Summit & MIT in Boston, United States (June 2016, planned)
20. Taiwan (July 2016, planned)

### *Wetskills Alumni*

Wetskills has more than 250 Wetskills Alumni worldwide. Wetskills created a database to maintain these contacts. In The Netherlands, social activities have been carried out, as well as for countries/regions where Wetskills has been held more than one times, like Romania, South Africa and North America.

Social media (website, Facebook page and Twitter) is important to maintain contact with the Wetskills Alumni. Wetskills Alumni are still helping the Wetskills organization to spread announcements, or to help with events, like the Jubilee celebration, network drinks, for example. Some of those even are Wetskills supervisors themselves.

### *Wetskills network with international universities*

Wetskills maintains relations with the universities in The Netherlands, but abroad as well. These universities are key for attracting participants in future events. Meanwhile second and third editions of Wetskills events have been organized or are in the pipeline. Such events are more difficult to organize without using the networks of the earlier events.

Wetskills also connects international universities for common research and student or teacher exchange. A consortium based on a Romanian and Dutch university, connected by Wetskills network, won a project in Europe to stimulate further cooperation. This is just one example of such result.

### *Research & Education within the sector*

The link between research and education at the one side and the working field (industry, business, government) at the other side comes closer together by Wetskills events. External experts from those businesses and governments guides and supports the Wetskills teams. They bring in their challenges, based on the practice.

### *WetsNext*

What is next after Wetskills? How to follow-up great concepts? That is WetsNext. This is a new program to stimulate follow-up activities based on the concepts / results of the Wetskills teams. Universities can use the Wetskills concepts for their education and research. The first focus of WetsNext is on further (feasibility) studies done by the same target group as Wetskills, but intensively guided by case owners, Wetskills Alumni, other interested partners to come further and gain impact.

## **Acknowledgement**

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## References

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- See all publications, news items and press-releases about Wetskills: [www.wetskills.com/publications/](http://www.wetskills.com/publications/)