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Organized by:

Global Water Partnership Southeast Asia

Towards a water secure world

Supported by:

ZANDER AGRO

Innovative Solution FOR SUSTAINABLE DEVELOPMENT

WEBINAR SERIES

INNOVATIVE SOLUTIONS FOR SUSTAINABLE DEVELOPMENT #2

Magmatic Water: new water source for addressing freshwater scarcity

19 August 2021

https://www.gwpsea.org

House Keeping Rules

1. This meeting workshop will be recorded.
2. Please **mute your audio and turn off your video** if not presenting or activate only when asked by the Host
3. Please change your Zoom ID to **Name – Organization (example: Fany – GWP-SEA)**
4. If you encounter problems, submit your questions in the chat box for further assistance

Objectives

- This webinar is aimed to share innovative solutions to address problems on the ground

Important notes:

- GWP-SEA features innovative solutions of GWP's partners
- GWP-SEA does not, in any way, receive any payment, gift or any other type of gratification in featuring these innovative solutions
- Featured innovative solutions must meet the following criteria:
  - Address problems on the ground
  - Environmentally friendly and sustainable
  - Climate change conscious
  - Socially inclusive
  - Affordable

Agenda

Time	Activities	PIC	Remarks
14:55 – 15:00	Admission of participants	Knowledge Management & Communication Officer GWP-SEA	
15:00 – 15:15	Welcoming Remarks - House Keeping Rules - Objectives - Agenda - Mentimeter Survey 1	Dr. Rahmah Elfithri, Deputy Regional Coordinator GWP-SEA	Mentimeter result shared by KMCO
15:15 – 15:17	Group Photo	Knowledge Management & Communication Officer GWP-SEA	
15:17 – 15:25	Opening Remarks - Mentimeter Survey 2	Fany Wedahuditama, Regional Coordinator GWP-SEA	Participants can start submit their question(s)
15:25 – 15:55	Innovative Solutions for Sustainable Development #2: **Magmatic Water: new water source for addressing freshwater scarcity**	Ruslan Lavrinenko, Zander - Agro	
15:55 – 16:25	Q & A	Fany Wedahuditama, Regional Coordinator GWP-SEA	Participants can submit question via chat box
16:25 – 16:35	- Mentimeter Survey 3	Fany Wedahuditama, Regional Coordinator GWP-SEA	Mentimeter result shared by KMCO
16:35 – 16:40	Wrap up & Closing	Fany Wedahuditama, Regional Coordinator GWP-SEA	

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Mentimeter Survey Guidance

1. Please use your cell phone
2. Please open your internet browser
3. Type in your browser: **www.menti.com**
4. Enter code: **4328 9124**
5. Please answer survey questions

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Mentimeter

GROUP PHOTO

Image by Gerd Altmann from Pixabay

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Fany Wedahuditama

Regional Coordinator

Global Water Partnership Southeast Asia (GWP-SEA)

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Mentimeter Survey 2

1. Please use your cell phone
2. Please open your internet browser
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4. Enter code: **4328 9124**
5. Please submit your question(s)
6. You can vote for the similar question(s)

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Ruslan Lavrinenko

CEO & Co-founder of Zander - Agro

Short bio:

CEO & Co-founder of Zander - Agro

Short bio:

- After 20 years working for international market leaders in real estate and food retail, Ruslan decided to change to environment and started ZANDER AGRO, a company with technologies and knowhow to improve climate change and change the daily situation
- ZANDER AGRO implements FRESH CLEAN WATER TECHNOLOGY to solve water scarcity and water pollution
- RUSLAN is member of the steering committee of GREAT GREEN WALL SAHARA and SAHEL project, has a wide business background with expertise in REAL ESTATE and large scale international projects development and target to change the world's philosophy and practical access to fresh water resources

Innovative points

- Renewable water source: magmatic/ juvenile water vs ground water
- New drilling technology: depth, success rate
- Time and cost efficiency: providing the water 3-5 days (suitable for emergency response situation)
- Affordability: no cure no pay, pay if successful, guarantee 3 years

Main problems with GROUNDWATER

- DEPLETION OF WATER TABLES DUE TO OVERDRAFT
- SALTWATER ENCROACHMENT
- DRYING OF AQUIFERS
- INDUSTRIAL DISCHARGES, URBAN ACTIVITIES, AGRICULTURE
- GROUNDWATER POLLUTION
- WATER LOGGING AND SALINITY
- INSUFFICIENT CONJUNCTIVE USE
- RISKY WATER SOURCE

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New Water

Borehole Discovery Technology

It is well known that fresh clean water is vital for human health and belongs to basic human rights

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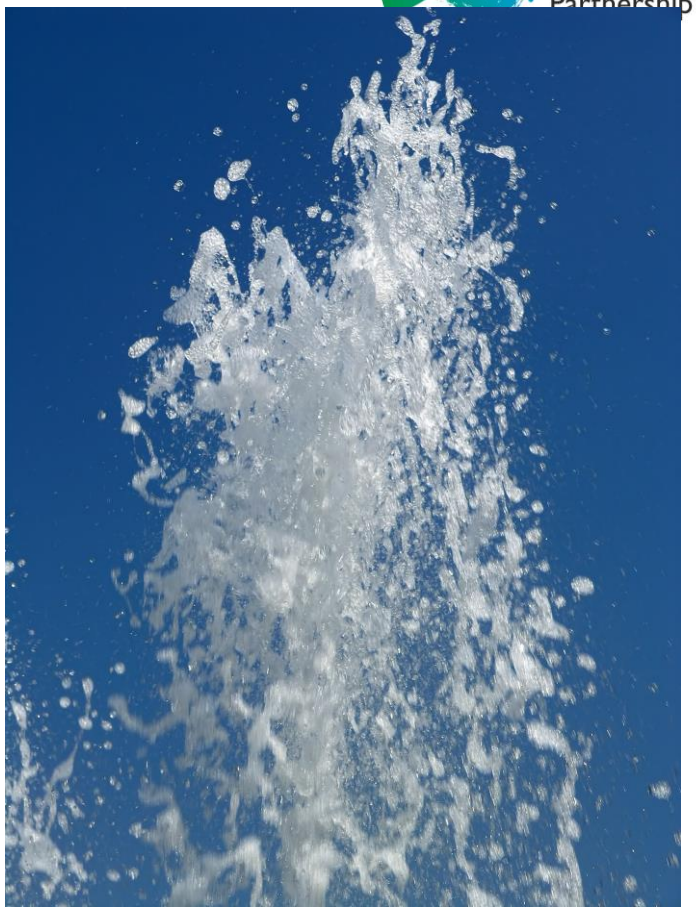
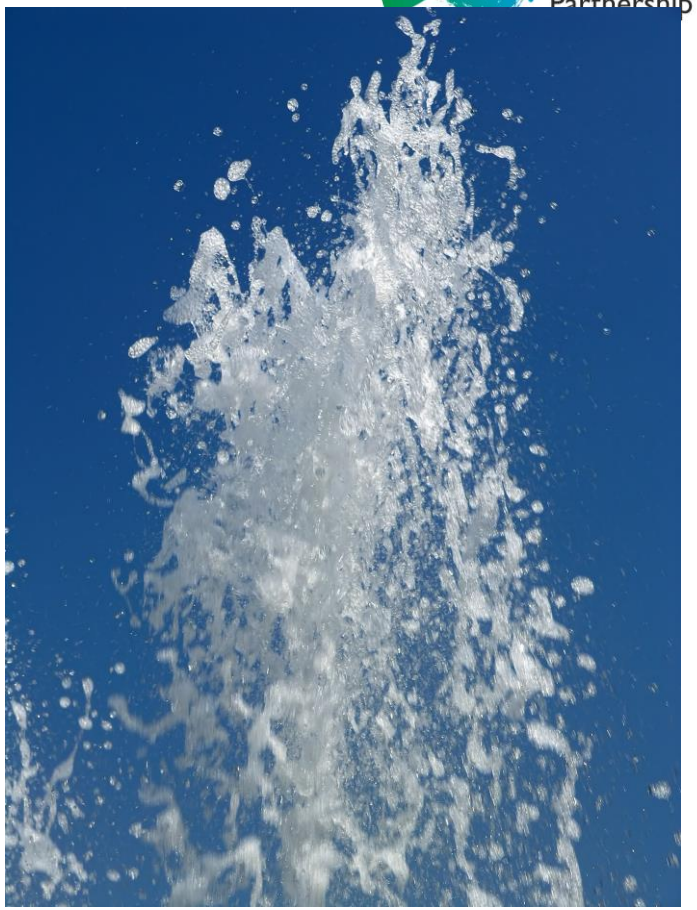
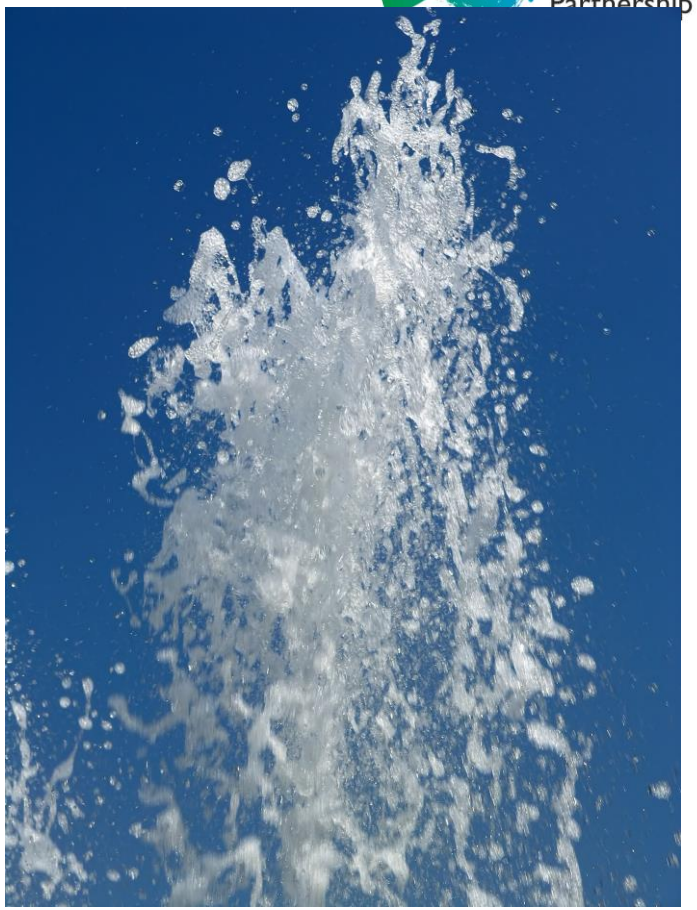
The lack of safe water in coastal areas, dry and arid zones, deserts all around the world is a big problem for business and people



With our technology it is possible to organize big volumes of fresh clean water to cover the demand of small and big communities, temporary emergency facilities, camps, agriculture, mining, food, other industries



Nowadays, diffuse pollutions of nitrogen and pesticides from agriculture and technogenic activities are the main obstacle to meet drinking water quality targets. National policies to protect drinking water resources have not achieved a consistent effectiveness in most countries



High nitrate levels (for example, in Germany, 18% of groundwater samples exceed the permissible 50 mg.), bacteria, and drugs residues — all this has become the daily reality of the population even in prosperous countries

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Our technology of spring water source discovery allows us to solve problems comprehensively, and this is related to both centralized and decentralized water supply. We can discover a source of water supply with enough volume of the high-quality water precisely in the place where the consumer needs

Pre-planning

Signing agreement Calculating water demand Researching water logistics

Water borehole discovery and report

2 dedicated onsite engineers Defining drilling pinpoints and depth Execution in 2-3 days Finding 2 extraction points

Quotation for drilling work and obtaining abstraction license

Client obtains all necessary equipment, and all necessary permits.

Drilling

2 days Drilling depth 300+ meters Drill diameter 300 mm, air compressor technology

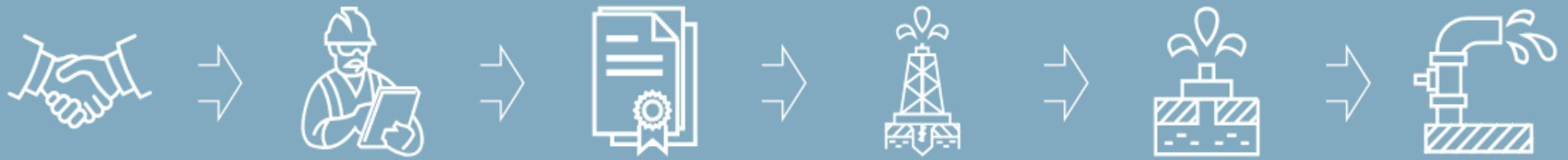
Drilling pinpoint audit

On detection of water, capacity is evaluated using pump tool and compared to the initial forecast

Water source furnishing

2-3 days Furnishing to be provided by Client according to our requirements

Our technology is really game changing. It's not about groundwater in the common sense. Our water is juvenile, magmatic water similar to artesian waters **with exceptionally high quality. It has never circulated in the air and in the soil. It is from under the tectonic plates**



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We can extract water in almost every place in big volumes. Each borehole can have daily flow rate up to 2000 cubic meters fresh clean water

Juvenile water has quality of the drinking water and this is confirmed by analysis of German Hydroisotop GmbH, Schweitenkirchen

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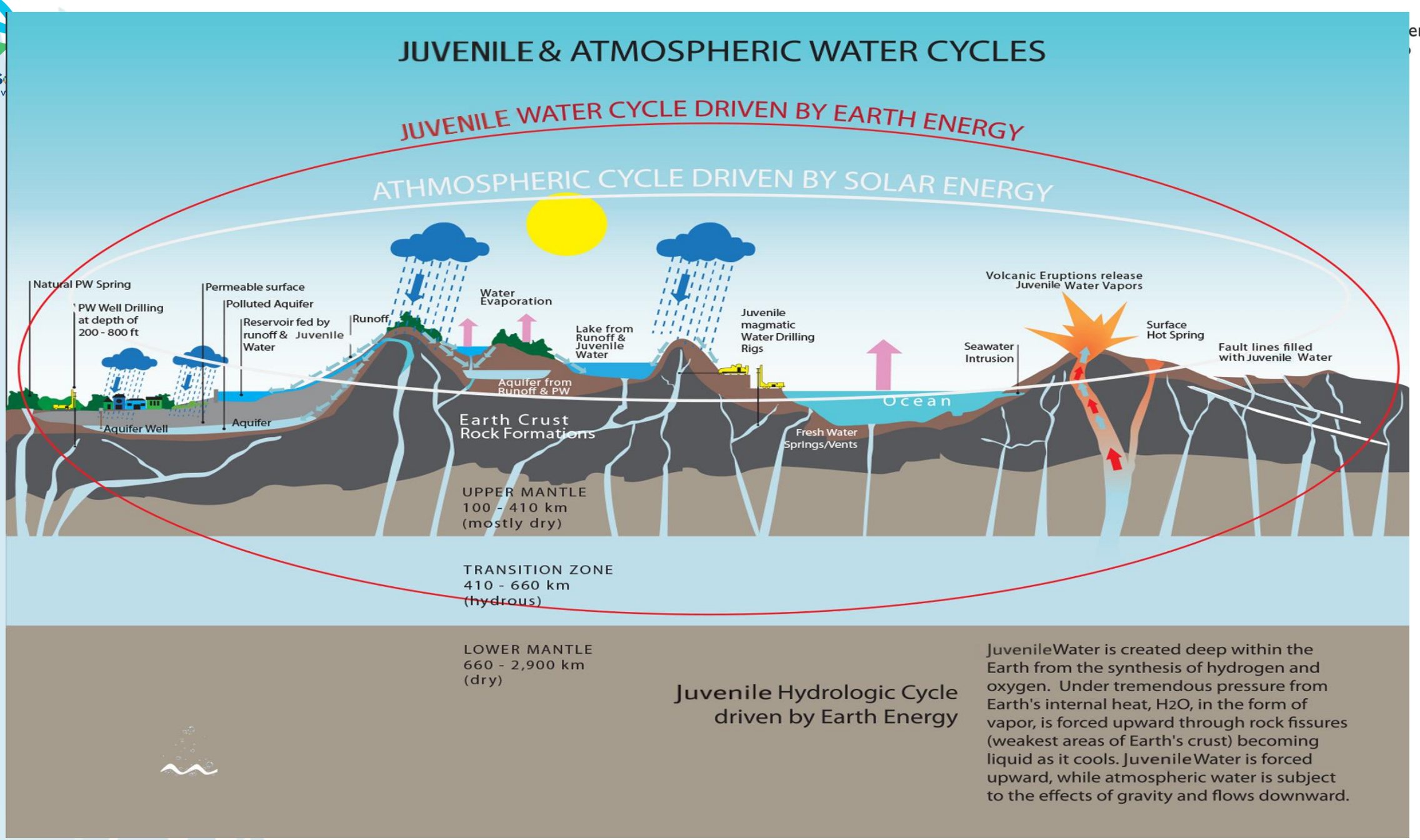
The geoscanning method developed by us is a unique technology that allow to find water-bearing cracks (zones of tectonic disturbance) and determine their coordinates with the necessary accuracy

JUVENILE & ATMOSPHERIC WATER CYCLES



Juvenile Hydrologic Cycle driven by Earth Energy

JuvenileWater is created deep within the Earth from the synthesis of hydrogen and oxygen. Under tremendous pressure from Earth's internal heat, H_2O, in the form of vapor, is forced upward through rock fissures (weakest areas of Earth's crust) becoming liquid as it cools. JuvenileWater is forced upward, while atmospheric water is subject to the effects of gravity and flows downward.

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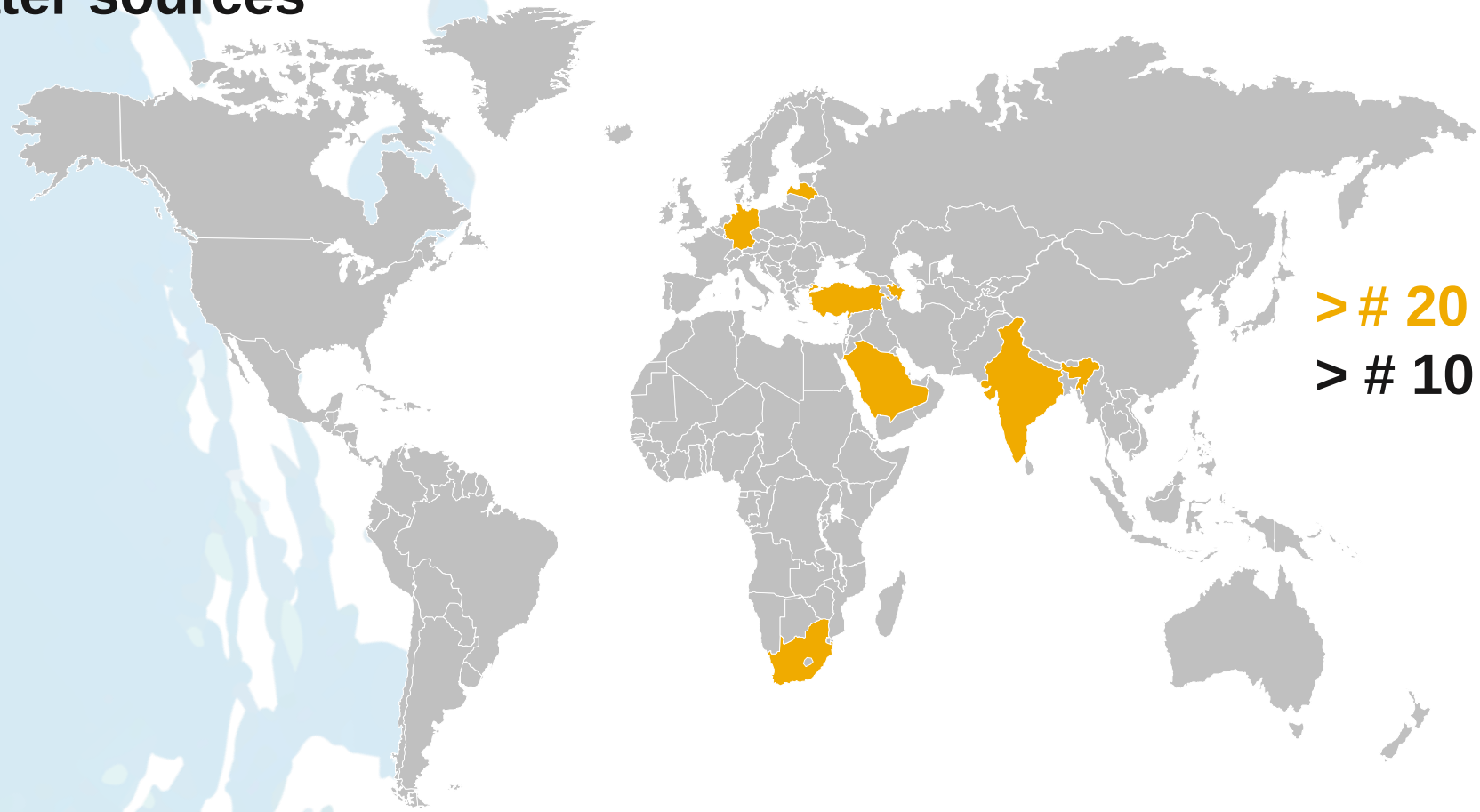
We have already successfully implemented projects in Germany, India, South Africa, Belgium, Saudi Arabia, Turkey, Latvia, Guinea, Azerbaijan etc. and would be pleased to cooperate with your esteemed organization in the framework of programs and projects aimed to ease access to fresh clean water sources



> # 20 of projects

> # 10 of countries (wells)

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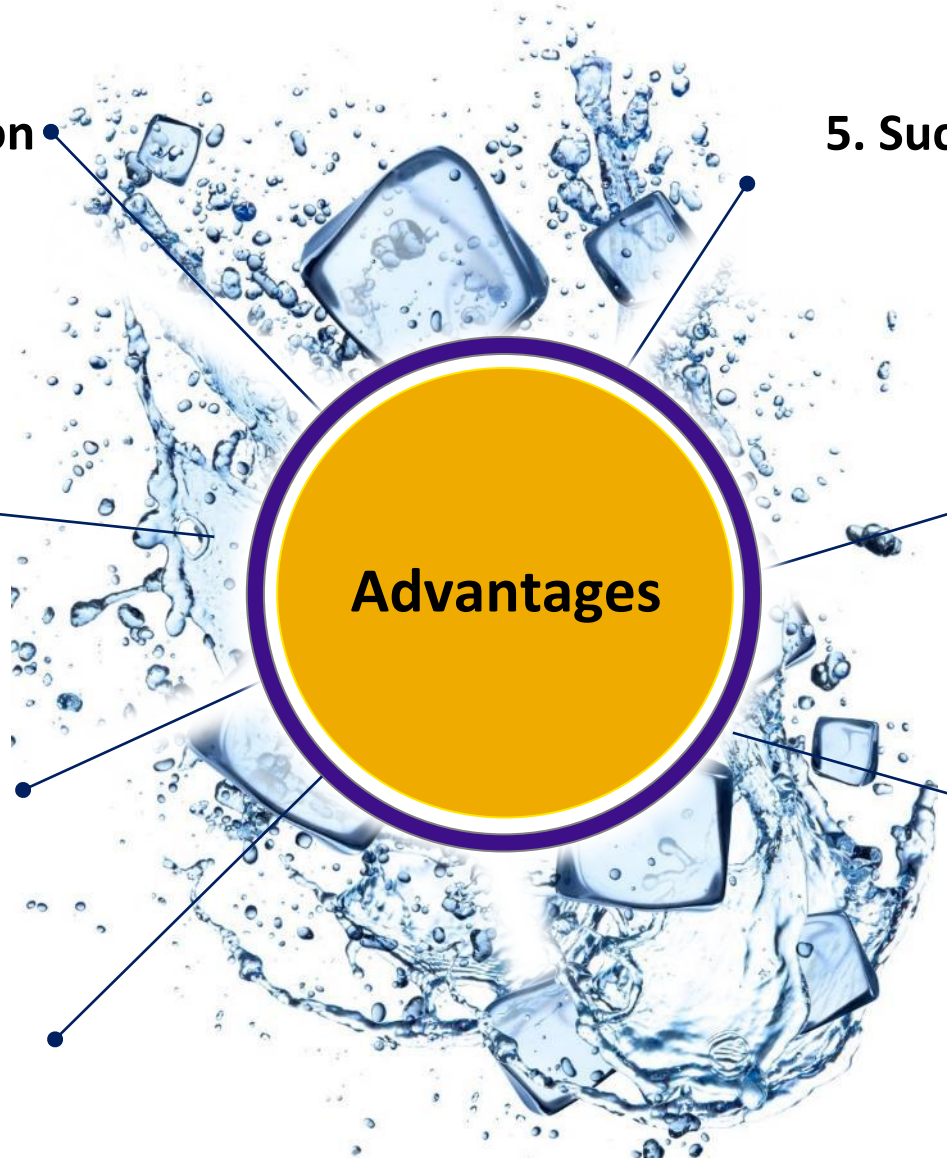
Case Study video

- Perlesreut, Bavaria, **Germany** - 100m, 200 cubic meters daily flow rate
- **Saudi Arabia**, Arabic Desert, appr. 100 km from Jeddah Direction North-Ost - 150m; 2 boreholes with excellent quality and daily flow rate of 1300 cubic meters per day each borehole

Seven advantages of our technology



1. Efficient solution
2. Emergency and urgency
3. Volume and capacity
4. Quality
5. Success rate
6. Performance guarantee
7. Product longevity and functionality guarantee

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1. Efficient solution

Our technology ensures very well the sufficient and efficient water solution for state, municipal and local needs.

It can be placed just near the client, so you save lot of time and huge costs on the infrastructure, like pipelines and also on establishing a water treatment plant. Because our water is primarily clean and ready for human consumption

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2. Emergency and urgency

In urgent cases we can organize supply of water according to World Healthcare Organization drinking water standards in 3-5 days. So you can avoid the high costs for bottled water supply.

In Yemen or Kenya by refugee camps and other critical disaster places the UN pays a lot of money in millions for the delivered bottled water

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3. Volume and capacity

We guarantee the minimal daily water capacity from one water well of 85 cubic meters of clean safe water

The maximum daily flow rate of one borehole is up to 2000 cubic meters. We can organize supply of hundreds of thousands cubic meters of water with multiple wells on limited areas

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4. Quality

We guarantee that water matches the WHO drinking water standards and is ready for human consumption

Our water is free of all organic or inorganic pollutants. It is so called primal water. You can even apply the BIO-certificate for our water source

5. Success rate

The usual average success rate by drilling of water boreholes is about 30-40%

Our success rate is 97,5%

6. The performance guarantee

We request the payment after the delivery of the ready water source.

We can even discuss that we cover the drilling costs by reasonable rates

7. Product longevity and functionality guarantee

We guarantee at least for 3 years for the functionality of our water source

Otherwise in cases where the flow rate decreases more than 30% we either repair the water source or deliver the new one

Thank you!

Our contact information

Ruslan Lavrinenko
Zander Agro LLC
+380 50 310 51 22
ruslan.lavrinenko@zander-agro.com

Attachment

Detailed description of the technology (1/2)

Modern science provides several hypotheses of the origins of water on Earth. It is generally anticipated that during the process of Earth's formation it was very hot and did not contain any water at all. Now, however, water constitutes to more that two thirds of the surface of our planet. It is evident that within that tremendously long time period certain processes contributed to formation of water. Is there a possibility that these processes are still ongoing?

According to hydrogeology, atmospheric precipitation is the main source of water, both for the surface water and all sorts of water found beneath our feet. If that was the case, there would be no feasible explanation for the phenomenon of pressurized underground water. And yet we are encountering pressurized underground water on numerous occasions and not only in deep wells, but also as high as 20 meters below the surface.

Another assumption of modern geology that needs to be questioned is the statement that the majority of the water underground is contained in all sorts of aquifers – underground lakes, rivers, veins and lenses. Again, if that statement was true, then drilling to the water bearing horizon within the area of the aquifer would always result in water findings, but that is not always the case. Quite frequently search for underground water turns into a lottery, when results of prospective drilling do not support all previous theoretical models and number of dry boreholes exceeds the number of productive ones.

There's a theory that resonates very well with many years of our practical findings.

During the formation of the planets, about 4.5 billion years ago, the protoplanetary cloud, from which the planets subsequently were formed, contained not only a lot of silicon, oxygen, iron and nickel but also vast amount of hydrogen. Provided that hydrogen is the most abundant element in the Universe, this assumption appears to be justified. As an outcome of hydrogen's presence, the core of the Earth is likely to consist not of iron and nickel, as modern planetology suggests, but of the hydrides of these metals.

If the heat in the core of our planet would only be produced as the result of the decay of the radioactive elements, it would hardly be sufficient for the volcanic activity and tectonic shifts. However, the iron-nickel hydride theory provides a much more feasible explanation to the enormous amount of energy produced by the core of the Earth. The chemical reaction of iron-nickel hydride decomposition into iron-nickel alloy and hydrogen is experimentally proven to be exothermic.

Attachment

Detailed description of the technology (2/2)

Provided the scale of the processes in the core of our planet, the amount of energy released is colossal and sufficient to explain the phenomenon of volcanic activity and tectonic shifts. During the same reaction of decomposition, the hydrogen is released in huge volumes. Being the lightest element in the periodic table, it starts its slow journey from the core to the surface. At certain depths it is likely to meet oxidized rocks and a very well-known reaction occurs: 2H+O=H2O

As an outcome of constant reaction of decomposition, the pressure at the core is constantly rising. At certain levels it is sufficient to form tectonic cracks in the Earth's crust, through which liquid and gaseous substances find its way to the surface. Part of these substances are forming into water. The vivid illustration of that is the generally anticipated fact that water vapor constitutes up to 95% of volcano eruption matter.

From the practical point of view, in-depth understanding of water formation and distribution processes allows to source nearly infinite amounts of water in any geographical location.

Simply drilling right into tectonic fracture corresponding to certain criteria allows to release massive amounts of clean pressurized drinking water with stable supply.

The geo-scanning method developed by us resembles the hammer seismic method. However, we record and interpret not only a standard echo signal, as classical seismic suggests, but employ resonant modes that allow us to obtain additional information. As the result, with the use of unique combination of hardware and software tools, we have devised a unique method allowing to precisely pinpoint water-bearing cracks (zones of tectonic disturbance) and determine their exact coordinates, depth and yield with the outstanding accuracy.

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Q & A session

Please submit your questions through chat box or raise your hand.

Thank you

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Thank you!

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secretariat@gwpsea.org

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