

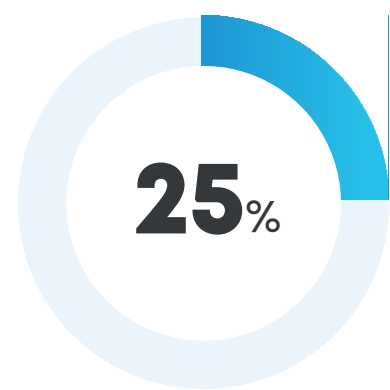


**New technology allows to transport drinking water to the regions suffering from water scarcity**

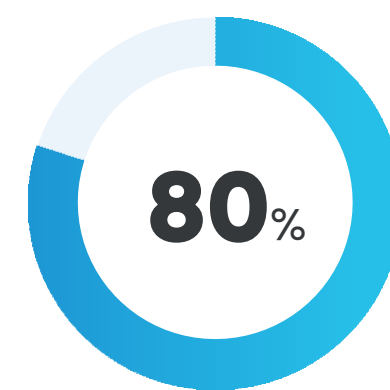
Investment idea addressing global fresh water supply crisis



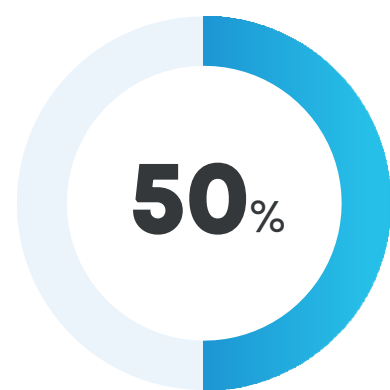
## Growing threat of drinking water shortages on worldwide scale



**Nearly 25 % of Earth population** (2,21 billion people) do not have access to safe fresh water (WHO/UNISEF, 2019)



**80% of all health issues** in developing countries are directly related to water quality






**By 2030 up to 50% of the world population** will be affected by severe drinking water shortages (UN)



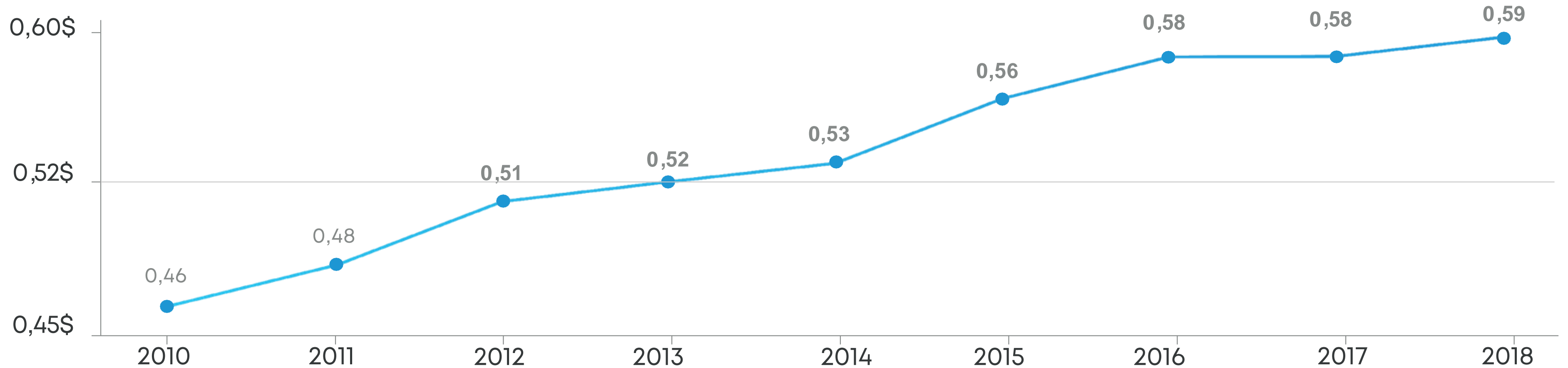
**297 000 deaths** registered annually among children under 5 years old are caused by unsafe drinking water (WHO/UNISEF, 2019)

# Rising cost of drinking water production in countries suffering from water scarcity \*

	DESALINATION	WATER TREATMENT	DELIVERY Y USUAL MEANS
 UAE	3,5 - 10		17 - 20
 China	8	Up to 13	Up to 13
 Indonesia	10	Up to 30	Up to 30

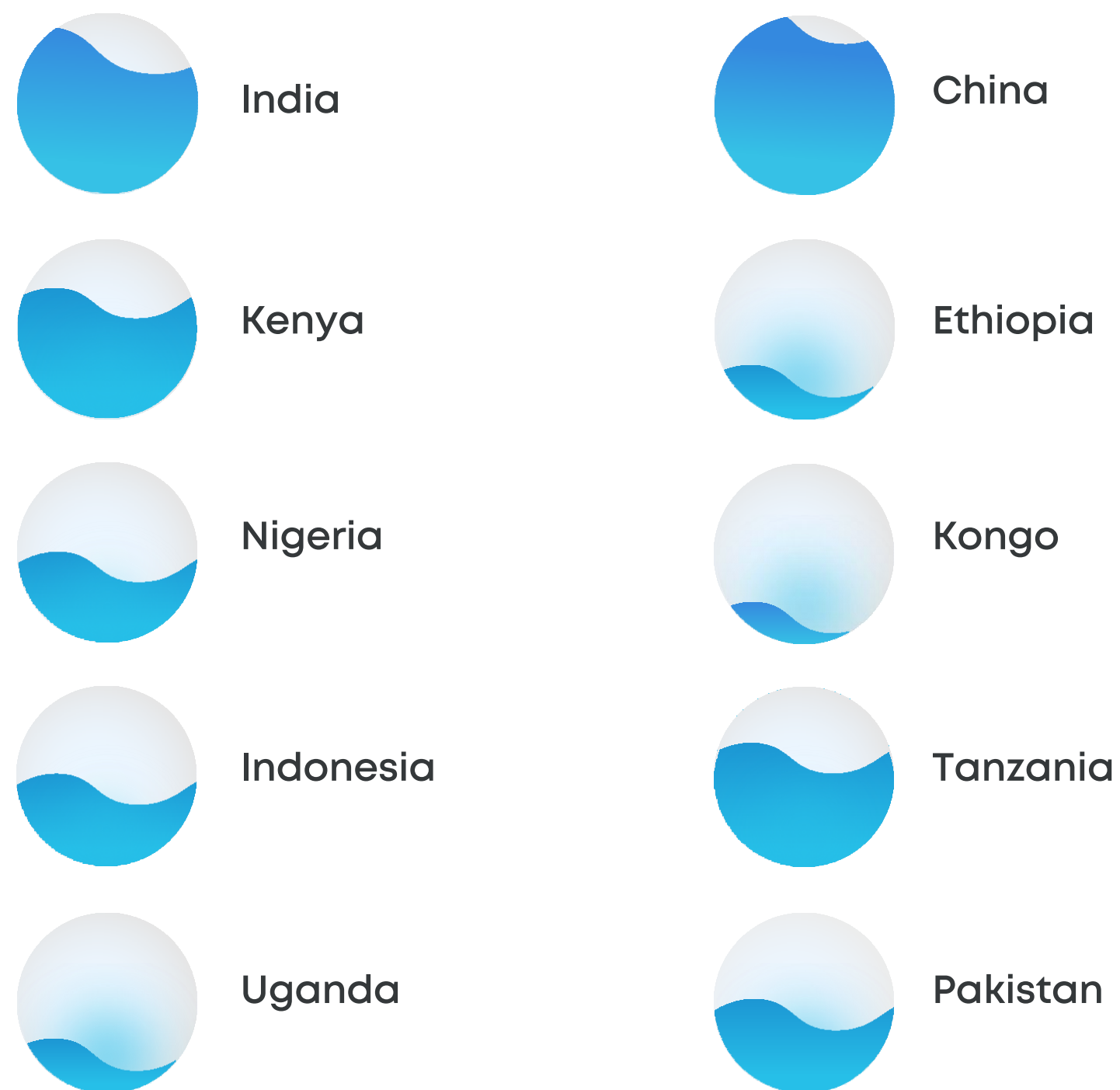
The average price for consumers is indicated in USD for 1m3



Price for 1liter of drinking water in China

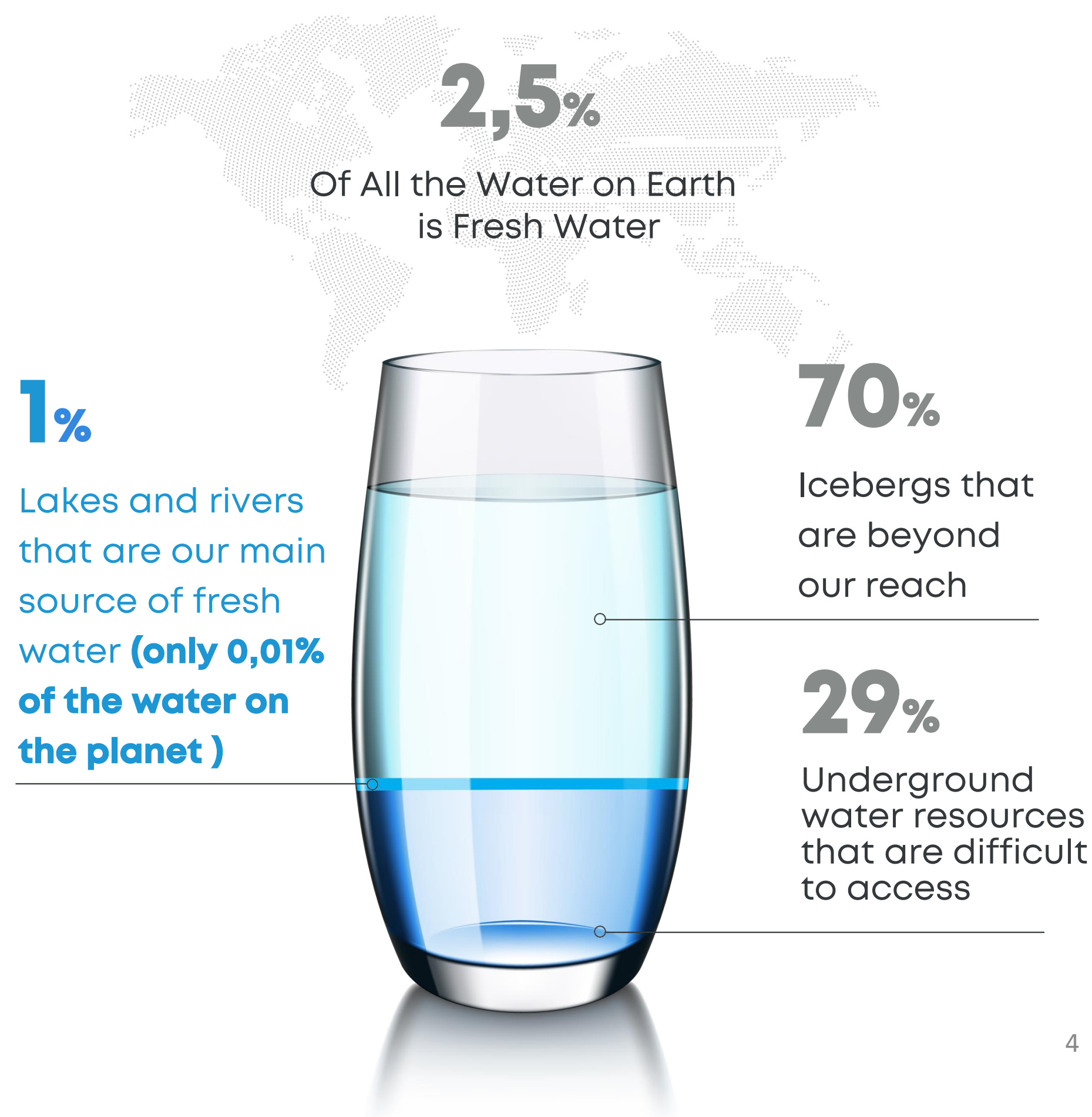


Source: <https://daxueconsulting.com/bottled-water-market-in-china/>

# What are the countries already experiencing water shortages?



 Percentage of country's population without access to clean drinking water  
 Percentage of country's population with access to safe drinking water source



# Russia has massive fresh water resources

Russia's fresh water resources can solve the fresh water shortage issues in South East Asia and Middle East

**20%** of the world's groundwater and surface fresh water resources are located in Russia



**13,5 billion lit/per day**

Is the volume of fresh water flowing into the ocean from just one river, located in the Russia's North-East



**11,4 billion lit/per day**

Is the volume of fresh water consumed by Singapore population

# IceTech – is a high-tech transportation solution that delivers millions cubic meters of fresh water via single logistics channel



**Creating** an artificial iceberg naturally, in the freezing temperatures, using the water supplied by one of the purest rivers of North-Eastern Russia



**Towing** an iceberg by sea from the production location to the areas suffering from fresh water deficiency



**Tearing down** an iceberg converging it into pure drinking water without any need for further purification and filtration steps

# Icetech solution in a nutshell



## Technology behind the artificially created iceberg production using fresh water

The iceberg is frozen at cold temperatures of the Russian Far East's northern territories, and subsequently thawed by natural heat of the arid regions. Energy expenses and carbon footprint are virtually nonexistent.



## Membrane freezing technology

The iceberg is frozen with the use of a polymer membrane that serves as a structural frame. This technology limits the thawing volume to 10-12%, while the iceberg is being delivered to tropical and near-equatorial latitudes.



## Logistics solution

The iceberg shape is hydrodynamically efficient, i.e. with the help of sea currents delivery speed can reach up to 8 km / h. For instance delivery from the Russian Far East to China would take 40 days only.



# Not science fiction any longer

## Icebergs are already towed nowadays.

In 2017, Rosneft (the leading Russian oil company) and Arctic Research Center arranged for towing of large icebergs in Barents and Kara Seas. The delivery was carried out during early ice formation, in much more severe conditions than those envisioned in the Icetech project.



### Vladimir Glotov

Doctor of Geological and Mineralogical Sciences, Far Eastern Branch of the Russian Academy of Sciences  
Acting member of the International Academy of Sciences of Ecology and Human Safety.

In the 1970s, Vladimir Glotov developed scientific concept of using cold temperatures to freeze fresh water for subsequent transportation.



# Not science fiction any longer

During the Kara-Leto-2017 expedition, organized by Rosneft together with the Arctic Research Center LLC, for the first time in the Russian Arctic, an iceberg weighing 1.1 million tons was towed in the ice field. The expedition work was carried out in the waters of the Barents and Kara Seas.



18 experiments on the physical impact on icebergs were successfully carried out, including the use of towing machines, propellers and a water cannon. For towing, depending on the size of the iceberg, a rope (length – 1500 meters) and a net (length – 900 meters) were used. The breaking force of the towing system was 115 tons.

The icebreaker "Kapitan Dranitsyn" and the scientific expedition vessel "Akademik Treshnikov", which are part of the fleet of the Northern Shipping Company, took part in the work.

In August 2020, Icetech and the Northern Shipping Company signed an agreement.

# Agreement of cooperation for creating artificial icebergs and transporting clean drinking water



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СОГЛАШЕНИЕ	AGREEMENT
<b>о сотрудничестве в области создания искусственных айсбергов и транспортировке чистой питьевой воды</b>	<b>of cooperation for creating artificial icebergs and transporting clean drinking water</b>
г. Москва «27» августа 2020 г.	Moscow «27» August 2020 г.
Настоящее соглашение заключено между «ICYCLE DMCC», в лице Директора Гончара Владимира Александровича, действующего на основании Меморандума Ассоциации, с одной стороны, и открытым акционерным обществом «Северное морское пароходство», в лице Генерального директора Антонова Я.М., действующего на основании Устава, с другой стороны, в котором стороны	This Agreement is entered by and between ICYCLE DMCC, in the person of Director Vladimir Aleksandrovich Gonchar, acting on the basis the Memorandum of Association, on the one part, and Joint-Stock Company "Northern Shipping Company", in the person of General Director Y.M. Antonov, acting on the basis the Articles of Association, on the other part,
Принимая во внимание стремление сторон к сотрудничеству на взаимовыгодной и долгосрочной основе, Принимая во внимание значимость развития технологий получения и транспортировки чистой питьевой воды Договорились о нижеследующем:	In consideration of willingness of the Parties to establish a mutually beneficial and long-term cooperation; In consideration of the importance of developing technologies for obtaining and transporting clean drinking water; The Parties hereby agree as follows:
<b>СТАТЬЯ 1</b>	<b>ARTICLE 1</b>
Стороны на взаимовыгодной основе и принципах взаимопомощи согласовали всемерно развивать сотрудничество в области создания искусственных айсбергов и транспортировке чистой питьевой воды.	The Parties have agreed to develop mutually beneficial cooperation, based on the principles of mutual assistance, for creating artificial icebergs and transporting clean drinking water.
<b>СТАТЬЯ 2</b>	<b>ARTICLE 2</b>
Стороны согласились, что целью сотрудничества сторон в области искусственных айсбергов и транспортировке чистой питьевой воды является создание долгосрочных соглашений в отношении всего комплекса услуг по созданию искусственных айсбергов и транспортировке чистой питьевой воды.	The Parties have agreed that their cooperation for creating artificial icebergs and transporting clean drinking water is aimed to establish long-term agreements for the full range of services for creating artificial icebergs and transporting clean drinking water.
<b>СТАТЬЯ 3</b>	<b>ARTICLE 3</b>

Company is registered & Licensed as a FREEZONE Company under the Rules & Regulations of DMCC  
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ОАО «Северное морское пароходство» обязуется на основании отдельного заключаемого сторонами договора (договоров) разработать и представить на рассмотрение ICYCLE DMCC комплекс необходимых транспортно – технологических мероприятий по транспортировке искусственных айсбергов.	JSC "Northern Shipping Company" hereby agrees to develop, on the basis of a separate contract (contracts), a set of necessary transport and technological procedures for transporting artificial icebergs, which shall be provided for consideration of ICYCLE DMCC.
<b>СТАТЬЯ 4</b>	<b>ARTICLE 4</b>
ICYCLE DMCC обязуется представлять всю информацию для реализации проекта транспортировки на условиях, подлежащих дальнейшему согласованию сторонами.	ICYCLE DMCC hereby agrees to provide all information for implementation of the transportation project on the terms and conditions subject to further agreement between the Parties.
<b>СТАТЬЯ 5</b>	<b>ARTICLE 5</b>
Споры и разногласия, которые могут возникнуть при исполнении настоящего Соглашения, будут разрешаться путем переговоров между сторонами. Во всем остальном стороны будут руководствоваться Кодексом Торгового Мореплавания и действующим законодательством РФ.	Any disputes and disagreements regarding this Agreement shall be settled through negotiations between the Parties. All other issues shall be governed by Maritime Code and law of Russian Federation.
<b>СТАТЬЯ 6</b>	<b>ARTICLE 6</b>
Стороны договорились, что все экономические и финансовые сведения, содержащиеся в заключаемых между ними договорах, соглашениях и протоколах, относятся к сведениям, составляющим коммерческую тайну. Стороны обязуются соблюдать конфиденциальность, не разглашать коммерческую информацию, полученную при исполнении заключаемых между сторонами договоров, соглашений и протоколов.	The Parties have agreed that all economic and financial information contained in the contracts, agreements and memorandums concluded between them shall be considered the information constituting a commercial secret. The Parties shall keep strictly confidential and shall not disclose the commercial information obtained during the execution of contracts, agreements and memorandums concluded between the Parties.
<b>СТАТЬЯ 7</b>	<b>ARTICLE 7</b>
Настоящее соглашение вступает в силу со дня его подписания и действует до дня его расторжения. Настоящее соглашение может быть расторгнуто при направлении одной из сторон письменного уведомления другой стороне за шесть месяцев до дня расторжения. Настоящее соглашение составлено в двух экземплярах. У каждой из сторон находится один экземпляр настоящего соглашения.	The Agreement shall enter into force on the date of its signing and shall remain in effect until the date of its termination. Any party to this Agreement may terminate it by sending a written notice of termination to the other party at least six months in advance. This Agreement is made in two copies. Each of the Parties shall keep one copy of this Agreement
<b>СТАТЬЯ 8</b>	<b>ARTICLE 8</b>
Юридические адреса и реквизиты сторон:	Addresses and banking details of the parties:

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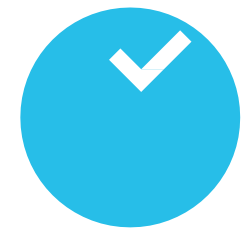
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<b>ICYCLE DMCC</b> Address: Unit No: AG--PF-29 G Tower, Plot No: JLT-PH1-11A, Jumeirah Lakes Towers, Dubai, United Arab Emirates DMCC184343 Телефон: +7(964)2383338, +7(964)2380007 e-mail: construct@icetech.pro	<b>ICYCLE DMCC</b> Address: Unit No: AG--PF-29 G Tower, Plot No: JLT-PH1-11A, Jumeirah Lakes Towers, Dubai, United Arab Emirates DMCC184343 Телефон: +7(964)2383338, +7(964)2380007 e-mail: construct@icetech.pro
  Директор V.A. Gonchar	  Director V.A. Gonchar
<b>ОАО «Северное морское пароходство»</b> Юридический почтовый адрес: Российская Федерация, 163000, г. Архангельск, наб. Северной Двины, 36 факс: (8182) 637-430, e-mail: info@ansc.ru ИНН 2901008432 КПП 290101001 ОГРН 1022900513679 Банковские реквизиты: Филиал ОПЕРУ Банка ВТБ (ПАО) в Санкт-Петербурге р/с 40702810286000101568 к/с 3010181020000000704 БИК 044030704	<b>JSC "Northern Shipping Company"</b> Legal/Postal address: 36 Severnaya Dvina Emb., Arkhangelsk, 163000 Russian Federation Fax: +7 8182 637-430, e-mail: info@ansc.ru Individual Taxpayer's number (INN) 2901008432 Reason for Registration Code (KPP) 290101001 Primary State Registration Number (OGRN) 1022900513679 Bank details: VTB Bank (public joint-stock company) Operations Department Branch in Saint Petersburg C/a No. 40702810286000101568 Correspondent account No. 3010181020000000704 BIC 044030704
  М.П. М.П.	  Stamp Stamp
Генеральный директор	General Director
Я.М. Антонов	Y.M. Antonov

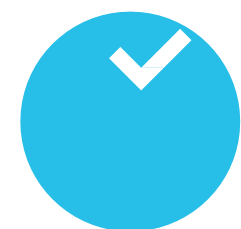
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# Income is generated from two sources



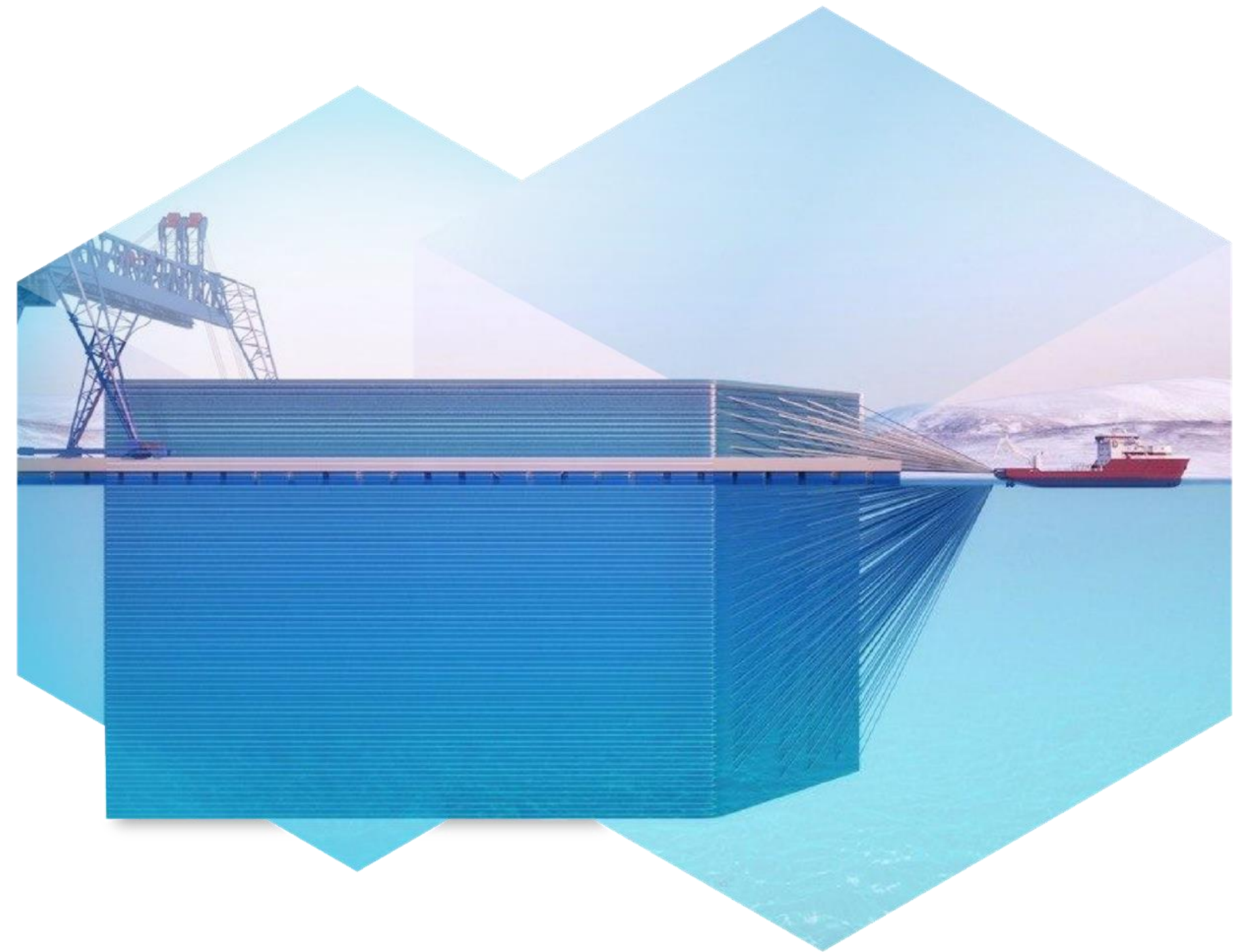
## **PURE DRINKING WATER DISTRIBUTION**

to key Asian-Pacific markets and Persian Gulf countries



## **SELLING LICENCES**

for the technology of building and transporting artificial icebergs



# Transporting volumes

Key advantage

Just one artificial iceberg with **8 mil tons** cubic meters capacity could provide Singapore with enough pure drinking water for **2 years\***.



\* Singapore population - 5,7 mln people Daily consumption - 2 liters per person

# Ecofriendly business

## Key advantage



At water intake location, the water balance is maintained and preserved, in fact, less than 3% of the river's resources will be used when operating at full capacity and less than 0.5% - at the project's early stages.



The environmental effect from iceberg thawing is comparable to heavy rain in terms of temperature and fresh water recharge.



The production complex suggests minimal CO2 emissions.



Iceberg membrane materials used for structural framing are recyclable and could be utilized as water containers.

# Fresh water quality

## Key advantage

- Perfectly balanced chemical composition from a nutritional point of view.
- There are no manufacturing plants or factories within 1000 kilometers from the water source.
- Ice-melted water enters into a chemical reaction in human cells at much faster pace, thus bringing more benefits for the human body.



Water source	pH	Cations, mg/lit				Anions, mg/lit			
		Na+	K+	Ca++	Mg++	HCO-3	SO--4	Cl-	NO-3
<b>Water composition in Gizhiga river</b>	<b>6.6</b>	<b>3.6</b>	<b>0.8</b>	<b>9</b>	<b>1.8</b>	<b>24.5</b>	<b>0.9</b>	<b>11</b>	<b>0</b>
Water composition Evian	7.2	6.5	1	80	26	360	12.6	6.8	3.7
Clear Alaskan Clacial Water	7.2	6.5	1	80	26	360	13	6.8	3.7
Water composition Perrier	5.5	9	0.6	147	3.4		26	0.8	0.2
Water composition 3ppm	7.7	3	0.2	31	1.9	390	33	22	18



# Energy efficiency

Key advantage

Using natural climate conditions for water freezing and transporting

**freezing** temperature is used to build an iceberg;

**sea current** directions and sea bottom topology;

**iced water** is thawed naturally by surrounding high temperatures in the supplied regions.

Production and delivery locations



# Lower Investment Requirements

Key Advantage

## Cost comparison with alternative project :

Water pipeline Baikal Lake – Western China

**\$ 80 bil.**

Estimated expenses to build water pipeline from Baikal to Western China.

Icetech

**\$ 25 mil.**

Total cost of establishing Icetech production cycle including the cost of creating and transporting an artificial iceberg weighing 8 mln tons.

### Cost comparison included the following parameters :

- Initial investment cost
- Logistics
- Infrastructural expenses including depreciation

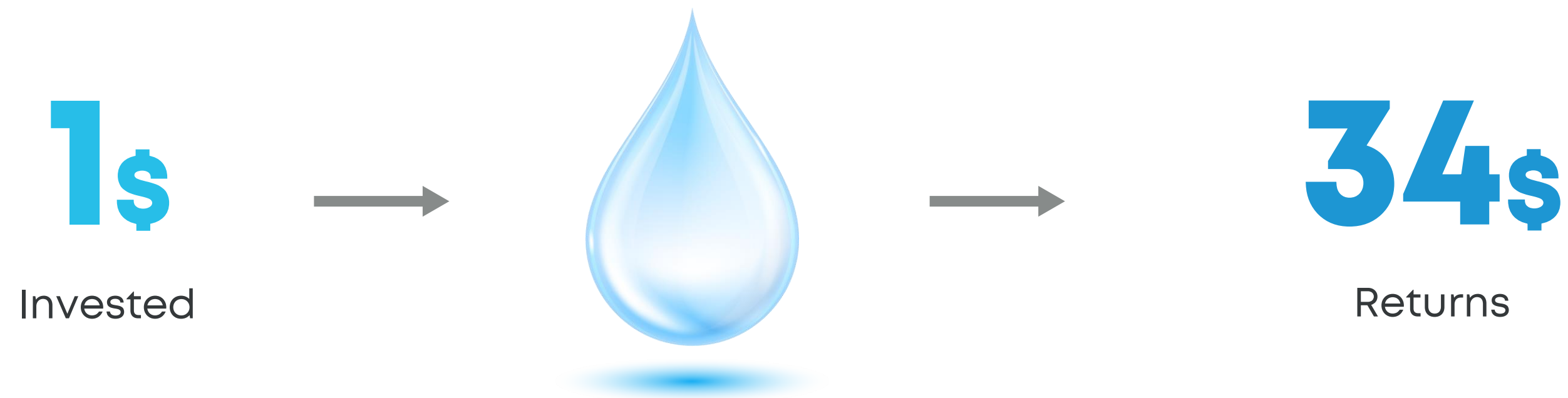


# Fresh water is the key market of the future

By 2028 fresh water market will be #1 in the world by the amount of financing.

Each dollar invested in fresh water accessibility improvements and safety will be yielding **from 4 to 12 dollars** on average, depending on the type of investment.

WHO estimates that each **1 USD**, invested in safe drinking water and sanitation improvements can generate returns ranging from **3 to 34 USD**.



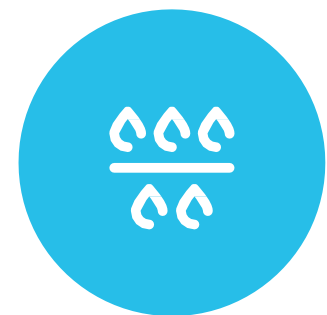
# Drinking water market size



Today, up to 10% of Earth population do not have access to fresh water resources.



UN data estimates that up to 50% of population will be living in water deficient regions.



In 10 years drinking water market volume will reach **\$1,4 billion**

$3,9 \text{ bil} \times 365 \text{ days} \times 1 \text{ lit} \times \$1 = \$ 1,4 \text{ billion}$



# Current status of project development



- ✓ **Technical** and commercial components of the project have been thoroughly developed.
- ✓ **International trademark** registration and technology patenting applications have been submitted.
- ✓ **Construction site** location is established.

- ✓ **Computer modulation** algorithm has been developed for iceberg production and delivery to Indonesia.
- ✓ **The data center** for computer modulation of iceberg creation and delivery has been fully equipped and provided for.

# Project development stages



**Investors** and tech companies are invited to participate in the project

**Iceberg supply** and delivery contracts are signed

**Technology expansion** to targeted markets in China, UAE, Indonesia

**Production and delivery** of the first iceberg is scheduled for 2023-2024

**Initial production** facility constructed in Magadan region located in the Russian Far East

**Additional production** sites are build in Russia and globally

**Production** expansion globally

**Establishing a charity foundation:** 10% of all iceberg sales will be allocated to support wanting regions with drinking water

# Cost directions

Cost direction	Amount of costs (USD)	Share of costs (%)
Membrane development (optimization of the chemical formula, research, modeling, creation and testing of membrane samples of various structures to identify the most efficient structure for various volumes of transportation)	691 630	2,8%
Refinement of software for modeling the iceberg route (taking into account data collection, the work of IT specialists, the necessary paid software and computer power)	2 754 115	11,2%
Development and creation of the necessary production equipment	4 846 719	19,8%
Capital expenditures for the organization of the production complex	4 864 677	19,9%
Costs of supporting activities at the place of production	2 873 765	11,7%
Direct costs of creating the first artificial iceberg	2 223 872	9,1%
Iceberg delivery costs	699 507	2,9%
Legal support of activities, including the protection of intellectual property and security control of the organization's activities in the framework of international cooperation	1 563 190	6,4%
Project management costs	1 110 446	4,5%
Expenses for the popularization of the project	1 204 388	4,9%
Reserve for unforeseen increases (increase in exchange rates, tariffs, supplier prices, climatic and other force majeure circumstances)	1 400 000	5,7%
External project audit	267 692	1,1%
<b>Total:</b>	<b>24 500 000</b>	<b>100,0%</b>

# Project expenses during the investment phase



thousand USD

	2021	2022	2023	2024	TOTAL
Investment in technology development	4 325	1 566	0	0	5 891
Intellectual property protection and legal support	1 006	836	0	0	1 843
Marketing and promotion of technology	498	581	0	0	1 080
Expenses for creating an experimental production complex	0	9 575	647	0	10 222
Operating expenses of the pilot production cycle	0	0	2 769	1 296	4 064
The contingency reserve	778	622	0	0	1 400
<b>Total</b>	<b>6 607</b>	<b>13 181</b>	<b>3 416</b>	<b>1 296</b>	<b>24 500</b>

Return on investment for the investor (ROI) 279%

# Efficiency of total investment costs

	thousand USD
Coefficient	Amount
Amount of funds raised by the investor, thousand USD	24 500
Net cash flow (2021-2030), thousand USD	238 816
Discount rate, %	14,4%
Net present value (NPV), thousand USD	110 480
Simple payback period, years	2,99
Discounted payback period (PBP), years	3,14
Internal rate of return (IRR), %	92,0%
Rate of return on discounted costs (PI), times	6,23

Return on investment for the investor (ROI) 279%

## Project support



- ✓ **Magadan regional government has agreed** to cooperate in establishing production facilities in the region.
- ✓ **An investment agreement has been concluded**, providing tax deductions for the new production facility, annulation of land leasing rates, subsidized utility connection charges and insurance premiums.
- ✓ **ICETECH is officially listed among state-supported regional investment project** allowing worldwide representation to potential partners.
- ✓ **The Agency for Strategic Initiatives**, created by the Russian Government, is constantly promoting the ICETECH project.
- ✓ **Our partners:** associations that support business including Delovaya Russia (business Russia), Opora Russia (Russia's stronghold), as well as "Association of Young Entrepreneurs of Russia" and "Council of Scientists of the Magadan Region".



# Project Mission and Vision



**Mission:** Bring water for life

## Corporate Values :

**Technology.** We use highly efficient technology to achieve perfect results

**Trust.** We are building clear and trustworthy relationship

**Sustainability.** We support UN work aimed at positive transformation of our world. Just as many UN members, we feel that safe and accessible fresh water resources should become part of the world we wish to create and live in

**Vision:** ICETECH innovations will provide hundreds of millions of people with clean fresh water

**Ultimate task :** To resolve water scarcity problem on a global scale

# Project team



## **VLADIMIR GLOTOV**

### **Co-Founder, ideologist of the project.**

Expert in research and development. Doctor of Geological and Mineralogical Sciences, Russian Academy of Sciences. Member of the International Academy of Sciences for Ecology and Human Security.



## **VLADIMIR GONCHAR**

### **Founder, Chief Strategy Officer.**

Directing internal and external expansion of the Icetech company and brand. Expert in global strategy. Serial Entrepreneur. Business coach in the United Nations International Labor Organization. MBA expert. Winner of the international "Peacekeeper" prize.



## **SVETLANA SHISHNEVA**

### **Chief Executive Officer.**

Expert in managing transcontinental projects of multinational companies; establishing partnerships with international partners and customers; and building winning business strategies. Extensive experience in telecommunications, sales, business solutions, services, products, support, and technologies.



## **ALEX KRASNOFF**

### **Co-Founder, Chief Marketing Officer.**

Digital Advisor. Expert in marketing communications, brand management, product marketing, public relations, corporate communications, IT and web design. Serial entrepreneur and Angel Investor. MBA expert. Bachelor's degree in law.



## **VASILY BOBRENKOV**

### **Chief Project Officer.**

Project Management Expert in construction and marketing. Certified IC Agile Professional. Founder of investment community. Entrepreneur in construction and marketing.



## **ALEXANDER JAROV**

### **Chief Economy Officer. Investment Advisor.**

Expert in asset and investment management, financial stability and financial risk management. Managing the company's economic and investment strategies. Founder of several online businesses. MBA expert. Bachelor's degree in strategic management.



## **ILYA DEKTYAREV**

### **Chief Sales Manager.**

Responsible for work with funds. Optimizes and maintains stability in the main business processes of the company. Expert in sales, product promotion and data analysis.



## **ALEXEY MOSTOVSHIKOV**

### **Co-Founder, Chief Legal Officer.**

Expert in carrying out vigorous business activities abroad, interaction with authorities, legal issues and business policy. Chairman of the Expert Council on Economics and entrepreneurship. Business Russia General Council Member and a business ambassador in Kuwait. Member of the Expert Council on digital economy and blockchain technologies in Russian parliament. Entrepreneur in various business areas.



## **ALEXANDRA GONCHAR**

### **Co-Founder, Chief Financial Officer.**

HR Advisor. Expert in financial and tax accounting, financial planning and financial risk management. International accountant. Lecturer in financial disciplines. MBA expert. Certified professional in Human Resources.

# Corporate structure



## **icetech, Russia.**

Full scale research and development (RnD)



## **icetech Innovations, Singapore.**

Intellectual property (IP)



**icetech**



**ICE Foundation, USA.**  
(Charity)



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