
DesignaThon
WORKS
GLOBAL VOICES OF THE NEXT GENERATION ON:
WATER

CONTENT

Introduction 2

Theory of Change 4

About Designathon Works 5

The Global Children's Designathon in numbers 6

About the Theme: Water 9

About the Research 10

Impact: Voices of the Next Generation 11

Evaluating Children's Inventions 17

In the Spotlight 18

Top Three Water Inventions From 18 Cities 25

Thank You! 46

GLOBAL VOICES OF THE NEXT GENERATION ON: WATER

Welcome,

At Designathon Works, we help to empower and unleash children's creativity and to spread awareness about the importance of engaging children as co-designers of our shared futures. Our flagship event: the Global Children's Designathon took place on November 11th, 2017. During this event 600 children, aged 7 to 12 years, participated in 18 cities around the world, where they created solutions to this year's big societal and environmental issue: WATER.

The children worked on 4 water sub-themes: water shortage, water pollution, too much water and endangered habitats. Additionally, during the event, ethnographers performed a study, collating a comprehensive collection of global voices of the next generation, the ones who will inherit our planet. And they spoke up! They have identified hundreds of problems and generated ideas which led to great solutions, prototypes and presentations.

The Global Children's Designathon provides a channel for two way inspiration: the children get to tackle the world's biggest problems and adults can gain a unique view of what the next generation envisions around water issues. The solutions they came up with are amazing and informed by their context. This report shows that children care for our planet, are aware of water-related issues, believe these issues are pressing and offer concrete solutions to solve them.

We believe that children should have a voice as co-designers of our shared futures. By reading this report, you are playing an active role in creating the next generation of changemakers. We hope it will inspire you!

Yours sincerely,

Designathon Works
















THEORY OF CHANGE - DESIGNATHON WORKS

We spread the Designathon method … → **… through three channels …** → **… to teach children new competencies …** → **… enabling them to co-design their future and prosper in it.**

Designathon method is a unique design thinking method for children, developed around the Sustainable Development Goals and designed to unleash children's creativity to design a better world using new technologies.

- School programs and teacher trainings
- Designathon Events for organizations
- Global Children's Designathon

Rather than focusing only on knowledge transfer like many educational systems, we also teach:

- Changemaker* skills
- Creative thinking
- Technological literacy
- Critical thinking
- Collaboration

The world in which our children will live as adults will be radically different from today's. We give children tools to co-design their futures and in so doing prepare them to prosper in a rapidly changing, increasingly technological and complex world.

THE GLOBAL GOALS
For Sustainable Development

* *A changemaker is someone who takes creative action to solve a social problem.* -Ashoka

Designathon WORKS

ABOUT DESIGNATHON WORKS

Worldwide there are 2 billion children of school going age. How can we prepare them to prosper in a rapidly changing, increasingly technological and complex world? How can they learn to design a better world for themselves and the planet? Armed with these urgent questions, 15 years experience in designing education programs in widely diverse contexts from Afghanistan to the Netherlands, plus a belief that all children can contribute to designing a better world, we at Designathon Works are attempting to answer this challenge with our unique design thinking method.

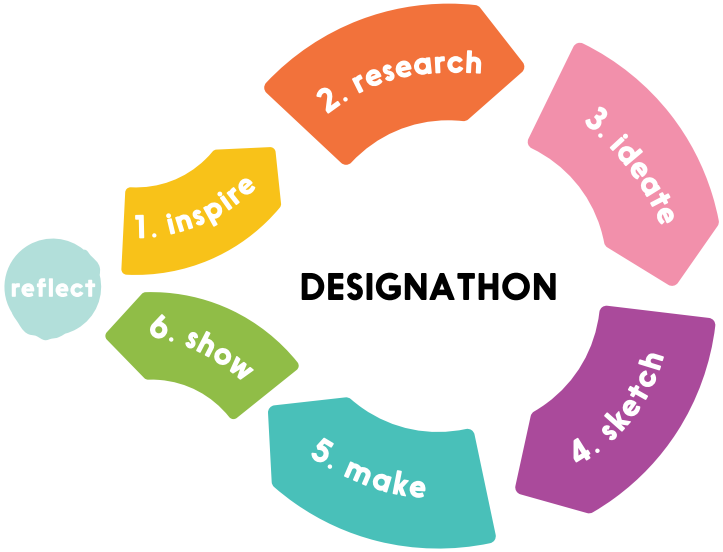
A *designathon* is a structured workshop in which children invent, build and present their self-devised solutions to a social or environmental issue around the Sustainable Development Goals. A workshop lasts four to six hours and is facilitated by education professionals.
The Designathon method combines aspects of Design thinking and Maker Education, both approaches which are gaining ground in education systems around the world.

Leading the international organization:

Emer Beamer, founder
Social Designer,
Ashoka Fellow

Ina Conkic, partner
Designer,
Resarch & Development

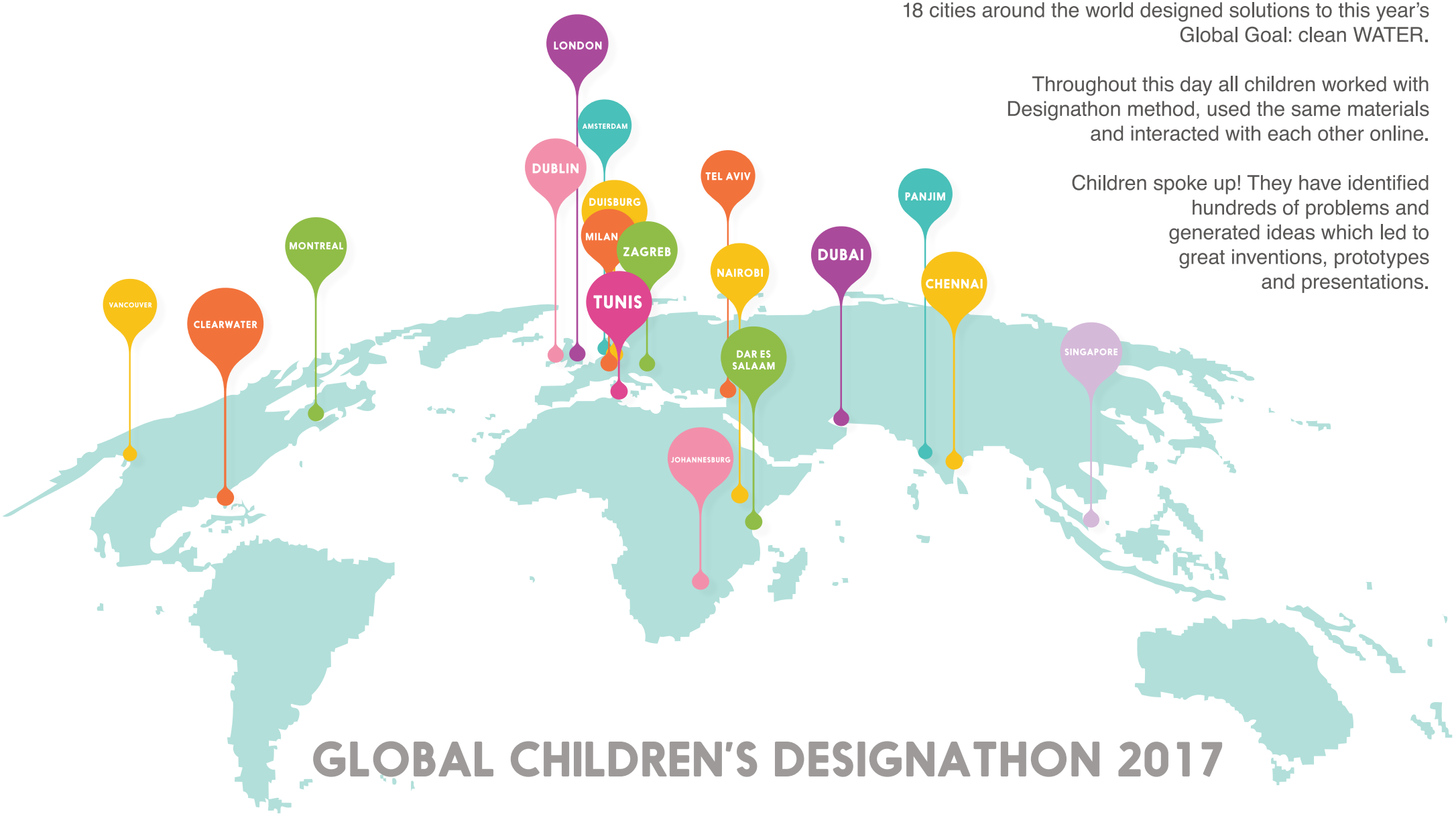
Anne Sallaerts, partner
Strategist,
Business Developper



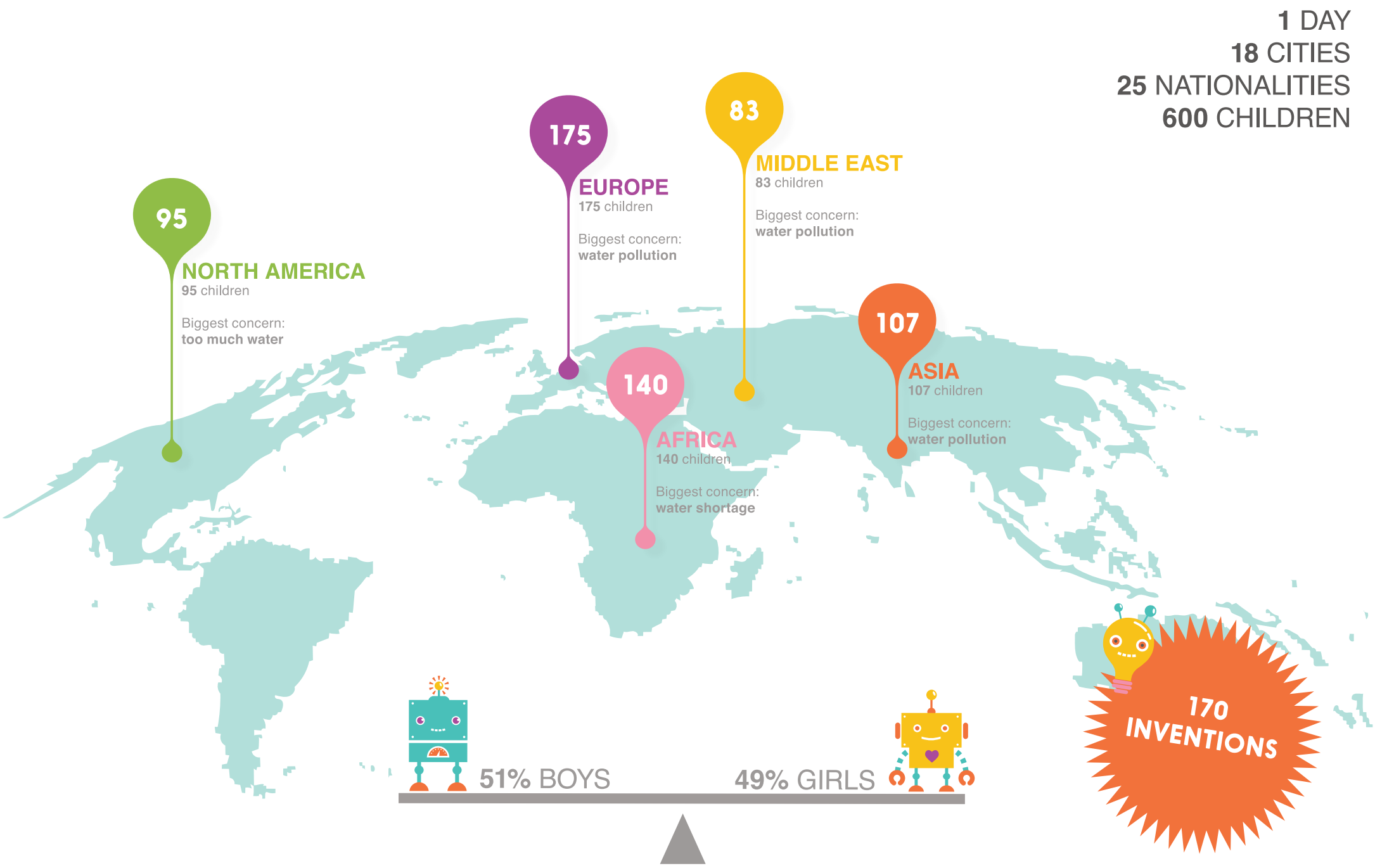
The 3rd annual Global Children's Designathon was held on November 11th, 2017.
During this one-day event, 600 children (aged 7 to 12) across 18 cities around the world designed solutions to this year's Global Goal: clean WATER.

Throughout this day all children worked with Designathon method, used the same materials and interacted with each other online.

Children spoke up! They have identified hundreds of problems and generated ideas which led to great inventions, prototypes and presentations.



GLOBAL CHILDREN'S DESIGNATHON 2017


1 DAY
18 CITIES
25 NATIONALITIES
600 CHILDREN
95
NORTH AMERICA
95 children
Biggest concern:
too much water
175
EUROPE
175 children
Biggest concern:
water pollution
83
MIDDLE EAST
83 children
Biggest concern:
water pollution
140
AFRICA
140 children
Biggest concern:
water shortage
107
ASIA
107 children
Biggest concern:
water pollution
51% BOYS
49% GIRLS
170 INVENTIONS

We asked children:

`WHICH WATER PROBLEM DO YOU WANT TO TACKLE AND WHAT CAN YOU INVENT TO SOLVE IT?'

ABOUT THE THEME: WATER

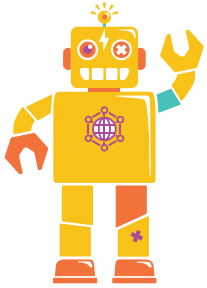
Our planet is 70% water and human beings are 70% water.
We believe that water is a connecting link between many aspects of life: economy, emancipation, equality, education, health, security, peace, nature, people, money, power, culture and politics. We recognize disasters such as disease, violence, war, economic downturns and ecological damage, but oftentimes only when it is too late does water appear on the agenda.

When looking at water, the cumulative efforts of the last three generations of leaders have been unequal to the forces against water. We know it's up to the next generation to apply their ingenuity, and therefore we need to engage the next generation to ensure a constant supply of fresh ideas and new perspectives.

During the Global Children's Designathon 2017, the children have used the Designathon method to invent and prototype solutions for more clean water in their cities and around the globe. They focused on four broad challenges: water shortage, water pollution, too much water and endangered habitats for fish and animals who live in and near water.

This report is THE collection of global voices of our next generation on water issues!

The children learned about: water shortages, water pollution, flooding, endangered habitats, micro-plastics and desalination.



ABOUT THE RESEARCH

We used the opportunity of the Global Children's Designation to conduct a remote field study in 10 of the 18 participating cities.

We sought to understand:

- The level of children's knowledge and their concerns about water in their societies
- The child as creative changemaker for global issues
- What we can learn from the child's perspective on water

And finally, to develop recommendations for how children can be included as co-designers of our shared futures.

The cities that participated in the research were: Amsterdam, Dar es Salaam, Dubai, London, Milan, Montreal, Panjim, Singapore, Tunis and Zagreb.

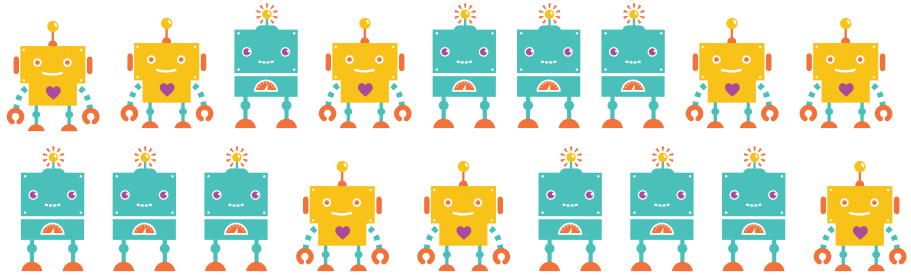
In total 159 children participated in the research of whom there was an almost even distribution of boys (78) and girls (81). Each respondent to the questionnaires acted as representative of his or her team. Teams ranged from 3 members to 6, the most common being teams of 3 to 4 children. The age range of the respondent children is 6.5 years to 13 years. The same questions were used for all children.

Methods:
Prior to the event we designed a research guide in three parts: firstly a series of questions for the local ethnographer to answer during the workshop in order to gather insights about children's behavior and knowledge, secondly an online questionnaire for the children to be answered during the event, and lastly an online questionnaire for the adult facilitators to be answered soon after the event.

The last component of our data consists of three selected inventions from each city with the photos, team names and invention description.

The collected data has allowed us to assess how children see problems around water from a local and a global perspective and also, the inventions they came up with to tackle the identified problems.

159 CHILDREN



10 CITIES

WHAT WE LEARNED

The children show us …

• That they care, and not just for themselves. They understand that we all live on the same planet and that we need to take care of the environment.

• That there is much awareness among children around water problems, although this awareness is not equally or correctly distributed.

• That they see our water issues as very urgent: their focus is on solving current problems rather than preventing future problems.

• That they have skillfully applied new technologies in their inventions solving pollution and shortage.

• That they have the ability to look at complex issues and then zoom into the core of the problem and invent plausible solutions.

… so we need to:

• Learn from them and be less selfish in solving problems locally: we need to look at global systems.

• Ensure to spread awareness of water-related issues globally, particularly regarding those that have local relevance.

• Act fast to clean up the environmental degradation, and not simply assist next generations to do less harm.

• Take a close look at the inventions of the children and take inspiration from them to develop new solutions.

• Observe the array of possibilities that the children show us. Children don't predict the future but they can help us craft our chosen path amongst the possibilities.

Children truly care, and not just about themselves

33% OF CHILDREN ACTIVELY JOINED THE GCD BECAUSE THEY FIND WATER AND THE ENVIRONMENT IMPORTANT ISSUES*

CHILDREN IDENTIFIED THE KEY WATER RELATED ISSUES FOR THEIR OWN CITY, BUT 50% DECIDED TO CREATE A SOLUTION FOR A (GLOBAL) ISSUE OUTSIDE THEIR CITY:

Issue	Identified as key** for their city	Addressed in their solution
Pollution	45%	58%
Shortage	38%	27%
Floods	18%	9%
Habitat	-	7%

The smell of water is bad and water is so polluted.
– 11 year old boy from Tunis

We would like nobody in the world to die from thirst.
– 11 year old boy from Milan

I love nature and I want to help the nature and people of the world. It's sad that some have everything, and some nothing.
– 9 year old girl from Zagreb

* The rest joined to learn in general or to learn about designing and inventing specifically.
** As an answer to the question: What's the most common problem with water in your city?

While there is an awareness among children about water related issues,

it is not equally or correctly distributed

44% OF CHILDREN IN DEVELOPED CITIES (LIKE MONTREAL) CONSIDER POLLUTION THE KEY PROBLEM

CHILDREN IN DEVELOPING CITIES (LIKE DAR ES SALAAM) CONSIDER SHORTAGE AND POLLUTION EQUALLY IMPORTANT PROBLEMS.

Key concerns in cities*	Developing cities	Developed cities
Pollution	50%	44%
Shortage	50%	28%
Floods	-	28%

We don't have many problems because we have dams.
– 8 year old girl from Amsterdam

OF THE CHILDREN IN WET CITIES (LIKE AMSTERDAM), 18% CONSIDERED FLOODING FACTS TO BE THE MOST SURPRISING INSIGHTS

We have a lot of water. We are very lucky.
– 6 year old boy from Dubai

20% OF CHILDREN IN DRY CITIES (LIKE DUBAI), CONSIDERED WATER SCARCITY FACTS TO BE THE MOST SURPRISING INSIGHTS

* As answer to the question: What's the most common problem with water in your city?

Children see water problems as urgent:

they focus on solving them rather than preventing them

Type of idea	
Problem solving	58%
Prevention	27%
Education	9%

Because a lot of people and animals are dying from polluted water.
– 10 year old girl from Zagreb

64% ARE HIGHLY CONCERNED ABOUT ENVIRONMENTAL PROBLEMS*

If the planet is too polluted we will have less water, and so it is a problem.
– 8 year old girl from Montreal

Because living creatures in the ocean are being put at risk and we would like to design a solution to help them.
– 10 year old boy from Dar es Salaam

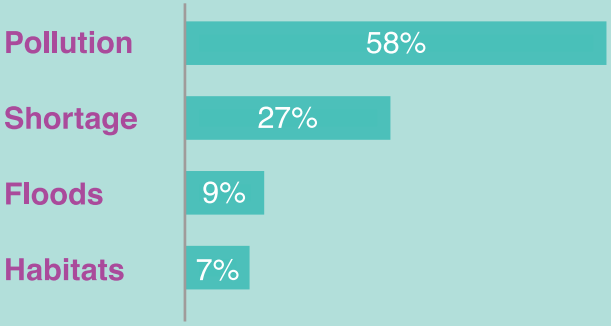
ONLY 9% OF THE CHILDREN FOCUS ON EDUCATING OTHERS OR CREATING BEHAVIORAL CHANGE AND IT IS ALWAYS A SMALL PART OF THEIR TOTAL SOLUTION

* Defined as scoring an 8-10 on the question: How concerned are you about the environment? (on a scale of 1 to 10)

Children have many inventions for solving water pollution and water shortage using technology ...

78% MAKE USE OF THE OPPORTUNITY OF NEW TECHNOLOGIES

PROBLEM SOLVED BY THE IDEA:



INVENTIONS TO SOLVE WATER POLLUTION:

- Robots to clean water: 73%
- Measuring pollution with sensors: 14%
- Plastic removal (non-robotic): 14%

INVENTIONS TO SOLVE WATER SHORTAGE:

- Smart water conservation 46%
- Mobile water storage: 39%
- Water transport while cleaning: 14%

... and by creating unusual combinations

The hydrobot travels through space to the gas planets, collect hydrogen and bring it back to a dedicated factory.

#duisburg

Water car with solar panels, based on the Hippo Roller. The water can get boiled while being rolled home to have clean drinking water.

#amsterdam

A house that is enabled to float when flood waters come high. Additionally, filters remove pollutants, and deliver clean water back to the houses while cut off from systems.

#vancouver

The plane that runs on solar energy and collects floating waste on the surface of the water.

#montreal

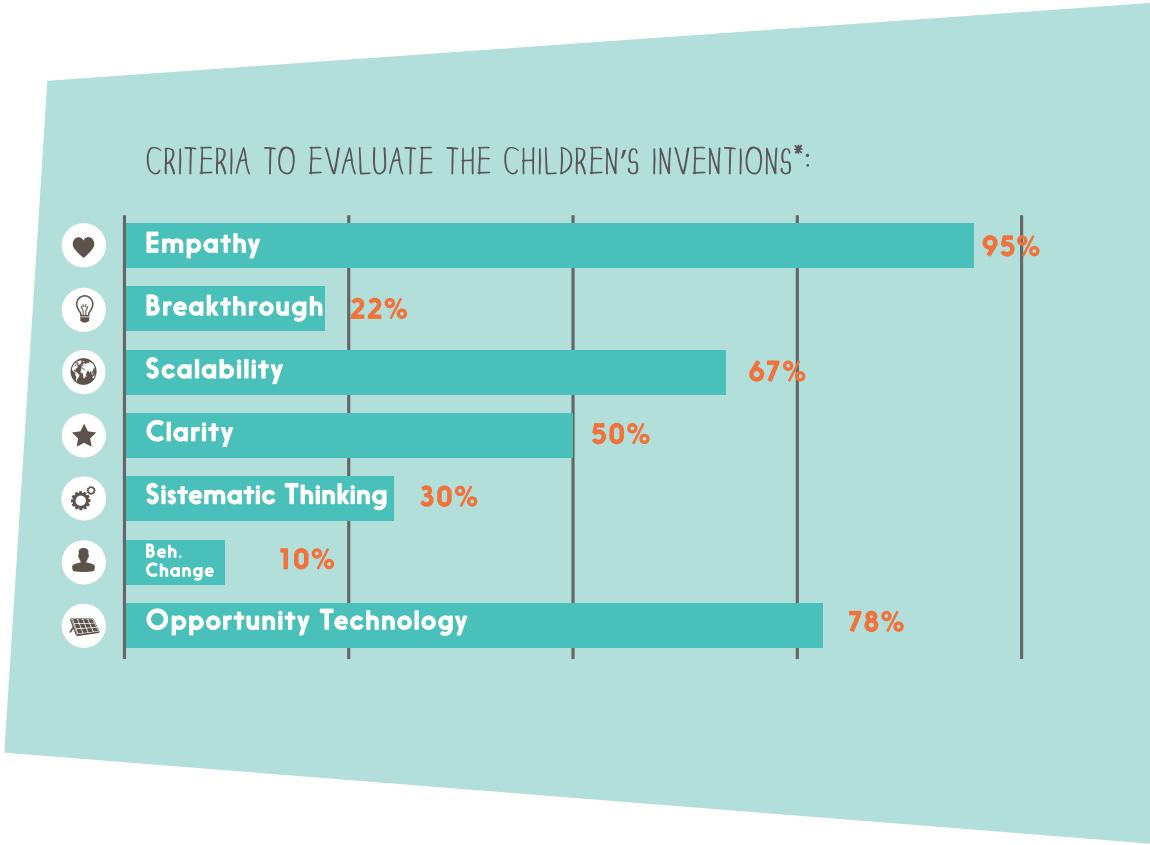
22% OF IDEAS CAN BE CONSIDERED TRULY BREAK THROUGH

24% OF IDEAS ARE A COMBINATION OF MULTIPLE IDEAS AND/OR SOLVE MULTIPLE PROBLEMS

EVALUATING THE CHILDREN'S INVENTIONS

Co-design of societal issues and environmental challenges with children still has a long way to go and including them is not by any means standard. However by focusing on their contribution as a form of research, we can learn of radical innovation perspectives that may not occur to adults and yet be very valuable. Similarly, by continuing development to understand and analyze children's contributions and experiences in design activities we can better appreciate children's concerns and values, leading to children having a seat at the policy making table.

In the remaining part of this report, the emphasis is on sharing this total pallet of possibilities of our "young imaginators". As you will see, they came up with a vast range of solutions and integrated these in their prototypes. As water pollution was one of the children's main concerns, they used a range of filtering devices and systems to store water such as a Palm-Shaped Water Collector. They even prototyped a flower that spins rewarding you if you take a short shower to save on domestic water consumption. Although not common, some of the ideas had a more "social" approach, including how to educate people in their communities about water pollution.



EVALUATING THE CHILDREN'S INVENTIONS

We also see that the level of empathy and sympathy of the children towards problems affecting other areas in the world is very high. Children have the ability to gain an overview of the issues, internalize their concerns and simplify the issue in order to create a inspiring solution space for themselves.
We have developed a list of criteria* with which to evaluate the children's concepts for tackling global water challenges. The criteria are based on the Harvard Business Review article the "Opportunity Checklist for Entrepreneurs" complemented by THNK's Creative Leadership Tools and Designathon Works' years of experience working with child inventors.

In the next few pages we share the selected inventions and point out the relevance for innovators. These examples and the list of criteria is useful when reviewing the solutions of the children from the different cities.

Children have to start facing complexity from an early age. That is why events like these are important: to let them experience the entire process, especially prototyping and presentation. Everyone can have good ideas, but only the ones that can execute and sell are able to bring ideas to life.
- Matteo Penzo, Technology Director at Frog Design (Milan)

The attitude towards solving problems: children seem to solve them with a calm approach and simple ideas but with great emphasis in knowing that it is their responsibility to make it work.
- Webbystar Mnzava, Facilitator (Dar Es Salaam)

IN THE SPOTLIGHT

A ROBOT THAT MINES METEORS FOR WATER

Team: Chris (8), Raza (9) and Jean (9)
Topic: water shortage
City: Dubai, UAE

Explanation:
This team invented a robot that can shoot at meteors, mine them for water, store the water in syringe tubes and then transport the water back to Earth. The team wished to tackle the problem of water shortage on Earth.

Dr. Noah Raford from the Dubai Future Foundation: “This idea is specially amazing because I just had a meeting last week with the Grand Duchess of Luxembourg who are investing millions in asteroid mining looking for water!”

Relevance for water innovators:
Looking at the qualitative criteria for idea selection we can conclude that children can re-frame problems and often “think big”. Seemingly outlandish ideas such as this one can serve as excellent starting point for innovators and global problem solvers.

IN THE SPOTLIGHT

HOME ELEVATION SYSTEM

Team: Andrew (8), Nicholas (8) and Gabriela (12)
Topic: too much water
City: Clearwater (FL), USA

Explanation:
This home elevation system would provide a way for a home to rise above the water level in flood prone areas. Hurricanes and flooding are common in Florida and many parts of the world. Some homes are already built on stilts, but often not high enough to protect the home from a flood. This system works with telescoping stilts so that when the flood waters reached a certain level, protecting the home and occupants from flood damage and displacement.

Relevance for innovators:
The ingenious part of this invention is the telescopic stilts. The telescopic principle has not as far as we know been applied to protecting houses in the event of floods, but is regularly used in other constructions and engineering projects. As in many of the other of children's inventions, their naivety allows them to propose unusual solutions that may prove very valuable.

IN THE SPOTLIGHT

THE FISH TUBE

Team: Pia (9), Jael (8), Vedat (9) and Eline (11)
Topic: endangered habitats
City: Amsterdam, The Netherlands

Explanation:
Often fish can't swim where they need to go because dykes and dams are in their way. That is one of the reasons why the fish lay less eggs and eventually can go extinct. The tube we have invented goes straight through the dam to give a way to the fish. There are camera's installed at both sides of the tube and also a mini robot in the tube that gives a signal if a fish gets stuck. Last but not least, researchers can learn more about the fish going through the tube via an App called the Fish Finder.

Relevance for innovators:
This invention makes use of new technologies to speed the fishes way and simultaneously allow for doing research on the fish. As sensor, chip and camera technologies become cheaper and ubiquitous, using them for fishes well being is a worthwhile line of inquiry.

IN THE SPOTLIGHT

THE DEW COLLECTOR

Team: Django (9), Cyrus (8) and Zuhayer (7)
Topic: water shortage
City: London, United Kingdom

Explanation:
This invention aims to solve water shortages in warm climates. The device is made to collect dew on top of sand dunes by condensing water vapor on top of specially placed rocks. Inspired by insects in nature, the rocks lead the condensed and pure water through pipes to a reservoir where all the water is collected. This idea was designed along with a GPS steered driverless vehicle that would transport the collected water to areas where there was a shortage.

Relevance for innovators:
Biomimicry is gaining ground as an idea generation approach as we look for ways to solve our environmental challenges. This invention combines being inspired by insects and using mini-robotics to come up with a viable proposition, given falling technology costs, for harvesting water in dry areas.

IN THE SPOTLIGHT

NET CLEANER

Team: Challengers
Topic: water pollution
City: Panjim, India

Explanation:
On the face of it, this is a water harvesting and water purifying machine. But the real innovative fix is a thin ‘net’ that covers the lake. The girls felt that most water pollution in their town is caused by people using water as a ‘dumping’ ground. This habit has been difficult to change. So they decided the best way is to ‘cover’ the water was with a thin net. This will make it easy to regularly pick up the waste and will also serve as a constant reminder to deter people form dumping.

Relevance for innovators:
Children are aware of our society’s uncontrolled consumerist habits by seeing how much trash we generate and how this directly affects the access to drinking water in many parts of the world. Their invention would need further development by materials experts but indicates a low cost and scalable solution for emerging economies.

IN THE SPOTLIGHT

SMART GREEN ROUNDABOUT

Team: Nour (7), Alya (11), Fatma (12) and Mohamed (8)
Topic: floods & water shortage
City: Tunis, Tunisia

Explanation:
Smart Green Roundabouts collect and store rain during floods. This water is pumped-up and used to irrigate plants during summer time.
This solves the problem of water shortage in Tunisia.

Relevance for innovators:
Children often have unexpected perspectives and using a roundabout as a water storage place is one such perspective.
Yet roundabouts are in many cities abundant and could indeed serve as local storage places under the ground, whereby the water can be used when water levels are low.
This solution also points at a new way of thinking, that of seeing our urban environments not as stationary and set but as a part of a living and changing ecosystem.

CHILDREN DON'T PREDICT THE FUTURE. THEY SHOW US AN ARRAY OF POSSIBILITIES TO HELP US CRAFT OUR PREFERRED FUTURES.

AMSTERDAM, THE NETHERLANDS

DESIGNATHON WORKS HQ: EMER BEAMER, INA CONKIC, ANNE SALLAERTS AND TESSA ASKAMP

About the hosts
This is where the whole thing started, at the headquarters of the Designathon Works foundation in Amsterdam.
Designathon Works foundation comprises three people: Emer Beamer (founder, social designer), Ina Conkic (partner, designer) and Anne Sallaerts (partner, strategist).
Tessa Askamp joined the team as the project coordinator and together with Ina, played crucial role in organizing the Global Children's Designathon.
The main goal of our foundation is to help empower and unleash children's creativity and to spread awareness about the importance of engaging children as co-designers of our shared futures. Through our flagship project we are playing an active role in creating the next generation of changemakers!

About the event
Children from all parts of the city and the rest of the Netherlands joined the event in Amsterdam. The group of children was diverse in terms of their cultures, socioeconomic background, age and gender. The Amsterdam event was held in the OBA, Public Library of Amsterdam, beautifully situated on the waterfront. A place where children's knowledge, creativity and love for reading is being stimulated.

The CaBo: a caravan and a boat in one

Team: Leyna (8), Gaia (8), Daphne (11) and Nuala (12)
Topic: too much water

During floods, people often have to flea to higher grounds and some people even drown. That is why we have invented the CaBo. It is a small caravan that floats on water and becomes a boat. In the CaBo a radio, motor, clothing, food and drinks can be found. The CaBo is attached to your driveway, so it can not float away. Outside the flooding season, you can use the CaBo to go on a holiday.

The Fish Tube

Team: Pia (9), Jael (8), Vedat (9) and Eline (11)
Topic: endangered habitats

Often fish can't swim where they need to go because dykes and dams are in their way. That is one of the reasons why the fish lay less eggs and eventually can go extinct. The tube we have invented goes straight through the dam to give a way to the fish. There are camera's installed at both sides of the tube and also a mini robot in the tube that gives a signal if a fish gets stuck. Last but not least, researchers can learn more about the fish going through the tube via an App called the Fish Finder.

A Water Car

Team: Julie (8), Lorelai (9) and Isabel (8)
Topic: water pollution & water shortage

Based on the Hippo Roller from South Africa. This team added the aspect of solar panels, so that the water can get boiled while being rolled home and in this way also be clean drinking water.

CHENNAI, INDIA

NEW WORLD FIGHT CLUB: SHAMMY JACOB & CHARLOTTE VAN 'T KLOOSTER

About the hosts
Shammy Jacobs has background in Mechanical engineering and Fashion Technology and is specialized in Human Centric Design at the THNK School of Creative Leadership in Amsterdam.

He is the founder of the New World Fight Club, a collective of over 50 Design Thinkers that help organizations solve complex business challenges through a structured creative method to trigger innovation while creating value for all. They are based in Europe and Asia. He is also the founder of the Saaf India Foundation that inspires Indians to keep public spaces clean.

Charlotte completed both a Masters of Biology and Medical Anthropology & Sociology together with the post-Master in Biology Education & Communication in The Netherlands. With a reach portfolio in various field from PR to Research, She is finalizing her PhD on the Saramaccan Maroons for the Leiden University Medical Centre. Charlotte is also a co-director of the New World Fight Club.

About the event
We LOVE innovation, and it lights a fire within us. We are solution seekers and finders, and we like to share and learn. No man is an island, you know. We see and feel the need to build programs for children, including those with special needs. In our own kids, we acknowledge the deep effect that nature, food, play and love have on their development and awareness of all things good.

The Water Saver

Team: Shravan, Angel, Junya and Mythili
Topic: water pollution

All non-drinkable water can be poured in where it would pass through a particle and toxic filter and clean water would come from the other side. If the water is still not drinkable a sensor would trigger a light warning the user of bad quality water.

The 20 Feet Tall Rain Collector

Team: Srinidhi, Subham and Haresh
Topic: too much water, water pollution & water shortage

This device stands at 20 feet tall and collects rain water. Its filters and treats water and stores it for the dryer periods.

Water Robot 2.0

Team: Ananth, Nisha, Ahimsa and Susan
Topic: water pollution

The Water Robot 2.0 can be deployed to all homes that have water that is non-drinkable. The sophisticated filtering system in the water robot can filter water to drinkable levels. Upon completion of its task the water robot will drive off to the next destination. It is a sort of self-driving water filter.

CLEARWATER (FL), USA

CLEARWATER'S FABRICATION LAB AT SAINT PAUL'S SCHOOL: PAUL HABERSTROH

About the host
Paul Haberstroh is the director of Innovation and Exploration at Saint Paul's School in Clearwater, Florida. This technology oriented middle school has its own Fab Lab, 'Clearwater's Fabrication Lab'. As the school is built on a creek in a state that is surrounded by water, the water theme of the Global Children's Designathon 2017 fit perfectly.

About the event
Participating in the Global Children's Designathon gave Saint Paul's School the opportunity to be part of a global community. The designathon methodology fit perfectly with their curriculum and the philosophy of the school.
Children from the local community participated in the Global Children's Designathon. These were children from a variety of socioeconomic backgrounds.

The Solar Powered Combination Well

Team: Samantha (12), Katie (11), Zoya 10) and Sarah (9)
Topic: water shortage & water pollution

This team addressed the challenge of pumping and filtering water in areas that may not have electricity or the technology to do so.
This low cost invention could fit into a well shaft or be placed in a body of water and run by solar power, providing clean water in remote areas without utilities.

The Mangrove Bot

Team: Ryan (10), Elliott (10), Ruthie (7)
Topic: loss of habitat & water pollution

Mangroves are declining globally from rising sea levels, development, and pollution. In Florida, mangroves are an important habitat for fish and many other species of wildlife.
This invention would monitor the heath of mangrove areas, and provide remote reporting of the water conditions around the mangrove area. It is solar powered, and would also clean pollution from the water.

Home Elevation System

Team: Andrew (8), Nicholas (8) and Gabriela (12)
Topic: too much water

Hurricanes and flooding are common in Florida and many parts of the world. Some homes are already built on stilts, but often not high enough to protect the home from a flood.
This system would provide for a home to raise up on telescoping stilts when the flood waters reached a certain level, protecting the home and occupants from flood damage and displacement.

DAR ES SALAAM, TANZANIA

THE JENGA HUB: NANCY SUMARI

About the host
The Jenga Hub is a maker's space and learning lab that aims to provide children and young people an opportunity to become digitally fluent by allowing a chance to design, create, and thrive through use of digital technologies and applying design thinking methodologies. The hub strikes a balance between structure and freedom in the learning through technology process as our members use software to create artwork, animations, simulations, websites, robotic constructions, musical compositions, multimedia presentations etc. It's aim is to achieve digital literacy for all.

We are a team of 4 young and dynamic individuals who are extremely passionate about equality and digital literacy for all. Through the hub we serve children between the ages of 7 and 15 years old.

About the event
Our first GCD was poised to be very special and unique because it was the first event in Tanzania but also the first time our children will partake in crafting ideas and solutions with kids from around the world to solve water problems. It really felt that they are a part of something bigger than themselves and it is important for us to highlight the abilities of our children and allow them to feel that their ideas and creations are valid.

DUBAI, UAE

LUMA SHI HABALDIN & NADYN KESSERWANY

About the hosts
Global Children's Designathon Dubai began with two organizers passionate about bringing design thinking as a way of problem solving to children: Luma Shihabeldin is a creative strategist who focuses on design as a process for innovation in her work, and Nadyn Kesserwany, marketing & event organizing specialist who is eager to focus her efforts more on children initiatives.

About the event
Dubai is setting the stage for community engagement and innovation and is an ideal stage for events like the GCD where Designathon Works recently received a grant from World Expo Dubai 2020.

Global Children's Designathon Dubai saw over 30 children from a variety of schools and with the diverse range of backgrounds. These children were all excited by design and the possibilities it offers, interested in creating and innovating.

A Robotship That Mines Water From Meteors

Team: Chris (8), Raza (9) and Jean (9)
Topic: water shortage

This team invented a robot that can shoot at meteors, mine them for water, store the water in syringe tubes and then transport the water back to Earth. The team wished to tackle the problem of water shortage on Earth.

Dr. Noah Raford from the Dubai Future Foundation: "This idea is specially amazing because I just had a meeting last week with the Grand Dutchess of Luxembourg who are investing millions in asteroid mining looking for water!"

A Robot With An Extendable Hand

Team: Nedi (8), Adnan (8), Hamza (8) and Seif (9)
Topic: water pollution

Robot that can swim under water and pick up trash with an extendable hand. It also filters water and stores it in its body.
It has light sensors to "see" rubbishin the dark.

An Irrigation System

Team: Zena (8), Sia (11) and Tamana (8)
Topic: water shortage

A system that uses solar panels to clean water. It can be used for irrigation and for animals to drink.

DUBLIN, IRELAND

MARIE LONERGAN

About the host
Marie Lonergan is a passionate teacher of young adults who are trying to get (back) into the education system and build a career. She uses her boundless curiosity and her studies in geography and education supplemented by many world travels to help these young people take their next steps towards their chosen career path.

As a childhood friend of Emer, she hosted the GCD for the third year in a row. Both, because of her admiration for what Emer has done all over the world, and her own experience in working at Nairobits in 2001.

About the event
Two of Marie's children have become furious inventors in the last three years of doing Designathons and this year her eldest has graduated to co-facilitator!

This year Marie is collaborating with Ursula, and Cool Planet who will hopefully play a bigger role in Designathon moving forward.

New Smart Fabric To Clean Water

Team: Estelle (11) and Savanah (10)
Topic: water pollution

The team has come up with a new type of fabric that when water is pushed through it, by a lever the fabric will clean the water with the micro-pores in the fabric.
Currently there is much experimentation being done with graphene, as a way to filter water. Graphene oxide is impermeable to all gases and vapors, besides water, and further research revealed that an accurate mesh can be made to allow ultra-fast separation of impurities from water.

A Water Windmill At Home

Team: Eva (9) Conor (9) Noah (10)
Topic: water shortage

The team wanted to see solution for people living in hot countries where there is too little water such as in Africa. Especially as there would be no water to drink.
The idea is very simple. It is a windmill, with a collection tank. The water would be sucked up by the windmill which works on wind, and as the water is being sucked up it would pass through a cleaning filter and so be ready to drink.
The windmill would serve one family.

An Article About GCD In Dublin Gazette:


Out and About

Enjoying building global bridges

John Kelly

'IF YOU WANT TO CHANGE THE WORLD, YOU HAVE TO CHANGE THE METAPHOR.'

- Joseph Campbell

DUISBURG, GERMANY

DESIGNATHON WORKS GERMANY: GISELE LEGIONNET

About the host
I believe design and education have to go hand in hand so we can live in a world of connections and expression. Designathons give children an early experience of the joys of inventing together, which I hope they cultivate during their lifetime. For the third German GCD, we have built a team of educators, designers and makers who will together guide the children through their first Designathon.

About the event
After two events in Berlin, Germany GCD is taking place in Nordrhein-Westphalen. Duisburg has many essential connections to our 2017 topic: water. It has the largest inland harbor in the world and is also the birthplace of cartographer Gerardus Mercator, whose projection is still the standard of nautical cards, and for online maps.

Duisburg GCD is pleased to be under the patronage of writer and business-romantic Tim Leberecht: “In order to design the future, we need to be more adaptive. Designathon inspires children at a young age to practice lateral thinking. Playful creativity and empathy are at the core of Designathons, and they are the very qualities that are more critical as our world is exponentially becoming more digital.”

The Hydrobot

Team: Mert (11), Mete (10) and Till-Luca (12)
Topic: water shortage

The team was interested in creating new sources of water for those who lack access to water. They are interested in robotics, engineering, and philosophy. The Hydrobot travels through space to the gas planets, collect hydrogen and brings it back to a dedicated factory on Earth where the hydrogen is combined with the oxygen to produce water.

Plant Express

Team: Estella (12), Luna (12) and Evia (12)
Topic: water shortage

Plant Express, a moving solution to ensure that plants and trees recover in drought areas through bringing water and seeds together with the right tool to the places where they can grow again. Rich countries like Germany should fund such equipment do that poorer countries can use it. The Plants Express moves on the ground, loosens and mixes the soil deeply, drops seeds and waters them so that they can grow into new bushes and trees.

The Underwater Waste Tracker 1.0

Team: Emilia (12) and Jannick (11)
Topic: endangered habitats

The Underwater Waste Tracker 1.0 will scout underwater collecting plastic waste. Its body mainly holds space for the collected waste. It has two motors, two propellers, a GPS unit, a camera. It recognizes waste both through sensors and through imaging.

JOHANNESBURG, SOUTH AFRICA

PHUTI MANGUBA

About the host
Phuti Manguba is a Service Designer in Design Thinking and Agile. In her work, she uses the Design Thinking and Agile principles to help organizations tackle complex business challenges, redefine products/services business models, strategies and software in order to optimize and develop breakthroughs for customer centric innovative solutions. She also helps students to develop their design skills so that they can become active agents in changing their own future. Phuti is passionate about teaching children to use creativity to continuously discover who they are yet to become.
Global Children's Designathon Johannesburg takes place in Play Africa, a children's museum based at Constitution Hill, a former women's prison during apartheid. It now is a living museum that tells the story of South Africa's journey to democracy. Phuti finds it the perfect spot to host this global event.

About the event
The Global Children's Designathon brings together children from different races and backgrounds. These are children who would most likely never meet in everyday life. This year, the children also got a guided tour through the former prison.

Water Pollution Robot

Team: TJ (7), Mulanga (9) and Nqubeko (9)
Topic: water pollution

The Water Observers built a floating robot to address water pollution. The robot scans for, and sucks up polluted water. The water travels into a tank in the robot where it gets cleaned and separated from waste. Waste is then transported into a compartment which processes it into "something useful". Clean water gets pumped out into water tanks and transported to villages where there is lack of access to clean water. The robot can be used in rivers / lakes or the ocean.

Household Recycling Machine

Team: Atisang (11), Alko (9), Bokamoso (12) and Ofentse (11)
Topic: water pollution

When dirty water from taps, toilets, shower etc gets flushed down, instead of going out through drains to the sewage, the water gets diverted into the machine. Then the mechanism in the machine uses built-in heaters to boil the water and separate the dirt, dumping it into a certain package. This results in clean water that can be transported back into the household system to be used for drinking, toilet, or shower. The machine can recycle up to 25 liters of water at a time. Which means 25 liters can circulate in the same household over and over again being useful to different household items.

Water Zoomer

Team: Yolisa (11), Nandi (10), Zama (10) and Sanaa (8)
Topic: water pollution

This invention is a cheap and affordable method to purifying water for people who cannot get access to clean water around the world. The girls demonstrated how to purify water using the invention. They collect water from rain then put sand, stones and cotton, and tissue so it takes away germs and then a burner to take away bacteria. The water then gets measured and 5 liters is given to each family per day. This invention can also be used by people who utilize too much water to save them money.

LONDON, UK

THE INSTITUTE OF IMAGINATION: KARIEN STROUCKEN & TOM DOUST

About the hosts
As the Global Design Challenge is about supporting and empowering children to use their imagination in design, the connection with the Institute of Imagination in London was evident.
The Institute of Imagination creates space for children to re-imagine the world. Its aim is simple - to empower children to develop vital skills for the future and help them flourish. From the first mark on a cave wall to the first footsteps on the Moon, our greatest developments have begun with leaps of someone's imagination.
The Institute of Imagination works with a wide variety of partners, many of whom are leaders in their field, such as LEGO, Blippar, Kano, Siobhan Davies dance company, Scoop Magazine, OKIDO and even neuroscientists the London Brain Project. It has also taken over public spaces such as City Hall. The Institute of Imagination has worked with over 14,000 people this year alone.

About the event
The Global Children's Designathon offers an exciting opportunity to not only connect and collaborate with children all around the world, but to work on solutions for global issues.

Dew Collector

Team: Django (9), Cyrus (8) and Zuhayer (7)
Topic: water shortage

This invention aims to solve water shortages in warm climates. The device is made to collect dew on top of sand dunes by condensing water vapor on top of specially placed rocks. Inspired by insects in nature, the rocks lead the condensed and pure water through pipes to a reservoir where all the water is collected. This idea was designed along with a GPS steered driverless vehicle that would transport the collected water to areas where there was a shortage.

Desalination Wall

Team: Hector (10) and Gabriel (10)
Topic: water shortage

A wall with an inbuilt filter to desalinate and clean water by sucking up water via a pipe, sending it through a filter and then evaporating the water. The evaporate would be re-condensed into clean fresh water, and can be supplied in pipes directly to homes. The salt would be collected in a container (powered by solar energy and batteries) and taken factories to be sold. This was a working prototype They thought of the whole cycle.

Driverless Fresh Water Transporter

Team: Claudia (7), Barbara (10) and Sophie (10)
Topic: water shortage

The vehicle has a standard route on a rails, where it travels every day from an area with water to areas with water shortage. The tracks pass several villages that need water. This way individual people don't have to travel long distances and they feel secure there will be water. As water shortage is unpredictable, the vehicle can also leave the rails and transport the water the new areas via driverless GPS. The vehicle has a suction system to take water in and filter it, and a tap to take water out. Each village can take a set amount which is marked on the vehicle.

MILAN, ITALY

FROG DESIGN: CHIARA DIANA & ELENA MARENGONI

About the hosts
Frog is a global design and strategy firm. Their passion is to transform ideas into realities. They partner with clients to anticipate the future, evolve organizations and advance the human experience.

About the event
The Global Children Designathon provides a wonderful opportunity for the team to live the frog mission and engage the Milan community by empowering local children with new skills and design tools.

The Milan edition of the Designathon took place in frog's design studio, which is home to 50 designers, strategists and technologists who work on the design of products, services and experiences for brands from across Italy and around the world. Although it is not widely known, Milan is an inspiring location with respect to the topic of water: its soil hides a dense network of canals that were once visible and allowed for the transportation of the marble blocks used to build Milan's famous Duomo.

The event hosted 36 children from Milan and the surrounding areas, representing 24 schools. Not all the children had prior exposure to design, but they all were certainly enthusiastic about it. One 8-year old from the Designathon group told us: "I love creating new things that can help someone else!"

The RoboFish

Team: Alice (7), Giada (7), Marta (7), Sofia (8) and Anita (8)
Topic: water pollution

The seas are often very polluted and the fish can get sick and die. If they ingest plastic and we eat the fish, we may get sick too. The RoboFish can swim really fast thanks to a propeller. If it sees that a fish is not well, it is equipped with an iPhone 7 and can directly call a veterinary. It can also prevent the fish from getting ill by collecting plastic waste and carrying it into safe area's where it is stored and recycled into electronic typesetting, remaining essentially uncharged.

A Palm-Shaped Water Collector

Team: Roberto (9), Paolo (10) and Pietro (10)
Topic: water shortage

The team created a palm-shaped water collector that can be positioned in rainy zones and connected to a transport service to bring water to dry area's.
A lot of ares suffer from scarcity of drinkable water, while others suffer from the opposite problem. The team wants to collect the excess of water and bring it to where it is most needed. To do this, they came up with the idea of a giant funnel made out of different materials: an iron base, some steel filters and a top made of waterproof palm leaves. Two tanks collect rain: when the tanks are full, a sensor, lights up and alert the staff that it is time to get on their trucks and come to collect the water.

A Smart System That Detects Pollution In Rivers And Lakes

Team: Viola (9), Camilla (9), Filippo (8) and Jacopo (8)
Topic: water pollution

The team came up with a smart system that helps citizens and farmers who live by the mountains know when lakes and rivers are polluted.
A lot of people throw out their garbage in rivers and lakes and pollute the environment. This has a lot of negative effects: people can't go swimming, farmers and citizens cannot use the water for their daily activities. The team created a smart meter that detects the level of pollution in the water and displays the results with a red or green light. In case of negative results, different people are alerted and a plastic vacuum system power by human energy is activated.

MONTREAL, CANADA

RYM BAOUENDI IN COOPERATION WITH IMPACT HUB MONTREAL

About the host
Rym's mission is to "help cities and youth rise to their full potential". And as a social entrepreneur, she likes to engage in projects and to work with people who support this mission.

Rym is the founder of Medina Works, a strategy+design consultancy based in Montreal and Tunis that helps governments, nonprofits and businesses craft impactful strategies and programs, develop skills, and build ventures to advance the Sustainable Development Goals (SDGs) within the context of cities and with a primary focus on empowering youth.
She is also the co-founder of Cogite, one of the "10 Best Coworking Spaces on Earth" according to Forbes and more importantly, a great entrepreneur community that is leveraging her platform to start and grow great ventures.

About the event
Medina Works is partnering with Designathon Works for the second year now by hosting the GCD in Montreal and Tunis. There are two great teams of facilitators (social innovators, educators, tech professionals) who are all passionate about the event. Medina Works is very excited as they know from previous experience that the team will get to collaborate with great co-facilitators, to connect with like-minded hosts from around the world and most of all, to work with children who always amaze them with their creativity and inventions. Let's Designathon!

Desalination System

Team: Loic (9), Elliot (7) and Vuk (8)
Topic: water shortage

The team developed a genius desalination system that uses wind energy.

A Submarine

Team: Kais (8) and Bar (9)
Topic: water pollution

The team developed a submarine that cleans the oceans using submerged and above-the-surface suction systems.

A Solar Plane

Team: Ines (9), Lou (10) and Emma (8)
Topic: water pollution

The team invented a plane that runs on solar energy and that uses suction to collect floating waste from the sea surface. This waste is then sorted for reuse and recycling.

NAIROBI, KENYA

BRCK: MARK KAMAU

About the host
Mark is a Human Centered Designer with a multidisciplinary design background with experience practicing in Berlin and Amsterdam and across the African continent. He specializes in designing for Africa and emerging Markets.
He founded the first open Human Centered Design Lab in Africa, supporting the iHub community of over 16,000 members with a wide array of startups. He also founded the first design week in Africa - Tajriba, (which means experience in Swahili) - the Nairobi Design week.
He has provided design consultancy through the UX lab for companies around the world. These include Google, Intel, IDEO, Grameen Foundation, and MasterCard among others.
Mark currently works as the Director of User Experience Design at BRCK where he leads the research and UX design of ruggedized connectivity hardware and software for Africa.
Mark is the Interaction Design Association coordinator for Kenya and has served at the advisory board of Ideo.org, Amplify. He also continues to mentor upcoming designers in several African countries.

About the event
Mark believes in the power of Design to transform the world. “Africa cannot afford un-contextualized design. The stakes are simply too high.”

Rainwater Purification and Storage System

Team: Joseph (10), Eunice (11), Brian (10) and Mishaella (11)
Topic: water shortage

A solar-powered rainwater purification and storage system that is connected to the neighborhood reservoir. (The mechanical system is inside the shelter).

The Debris Tawler

Team: Blessing (10) and Calvin (11)
Topic: water shortage

A trawler which collects debris from the ocean floor without disturbing the coral floor.

An Irrigation Collector

Team: Flora (10) and Maureen (10)
Topic: water shortage

An irrigation collector that separates liquids from solids and irrigates farm and waters farm animals.

'SOMETIMES, ALL IT TAKES IS THE IMAGINATION OF A CHILD.'

- Stephen Messenger

PANJIM, INDIA

SAMY MARDOLKER

About the host
GCD in Goa was hosted by Samy Mardolker for the second year in a row. He has been supported by family, friends and the local Rotary club.

Samy is a marketing insights professional and runs the business for Clear M&C Saatchi in Asia. He also runs an initiative called Chota Jugaad which believes that global problems are best addressed via small (Chota) innovative fixes (Jugaad).

About the event
For the GCD, Samy prefers to work with two local institutions who support orphans and underprivileged children. Samy believes that such grass roots level initiatives are inspiring, motivating and training for underprivileged children, is what it takes to change the world.

Net Cleaner

Team: Challengers
Topic: water pollution

On the face of it, this is a water harvesting and water purifying machine. But the real innovative fix is a thin 'net' that covers the lake. The girls felt that most water pollution in their town is caused by people using water as a 'dumping' ground. This habit has been difficult to change. So they decided the best way is to 'cover' the water was with a thin net. This will make it easy to regularly pick up the waste and will also serve as a constant reminder to deter people form dumping.

Industrial Water Cleaner

Team: Unity
Topic: water pollution

The team took on the challenge of purifying industrial waste before it is released into the water. The waste goes through a series of different treatments depending on the type of waste before it is released into the river. The focus is the 'channeling' of waste so treatment can be effective and efficient.

Salt Water Cleaner

Team: Cheetah
Topic: water shortage

Goa is on the west coast of India and has a huge shoreline (Arabian sea). So these team felt that the best solution to the water scarcity challenge was to build a desalination plant. It's for community / family use so it is compact in nature and therefore everyone can have access to it.

SINGAPORE, SINGAPORE

SCIENCE CENTRE SINGAPORE: PROF. LIM TIT MENG & ADRIAN LIM

About the hosts
The Global Children's Designathon Singapore is hosted by Prof. Lim Tit Meng, the Chief Executive of Science Centre Singapore and Adrian Lim, Director (Digital Participation & Foresight, Digital Readiness Cluster) at Infocomm Media Development Authority. It is hosted in the beautiful Science Centre Singapore, where no less than 60 children got the opportunity to participate!
Science Centre Singapore is an institution under the Ministry of Education. Since 1997, the center has welcomed over 30 million visitors. Stoking curiosity, and fostering a passion for Science is the driving motivation behind its success.

About the event
Participating in the GCD aligns well with Science Centre Singapore's mission. It is a good platform to encourage students to explore and investigate topic of their interest and innovate solutions to solve problems they identify as worthy pursuits.

A Portable Water Purifier

Team: The Purifiers
Topic: water pollution

Portable water purifier machine which is on wheels. The purifier has a filtration system which enables it to remove impurities from the water.

A Condensation Robot

Team: The Roman Condensators
Topic: water shortage

A Condensation Robot uses condensation techniques to retrieve clean water. This solution was based on reference from the Roman Aqueduct System.

Automated Rrubbish Collector

Team: The Collectors
Topic: water pollution

The machine will be deployed to collect rubbish in the sea. It is able to filter off the rubbish and return the clean sea water back.

TEL AVIV, ISRAEL

ITAI TALMI & NISSAN GRAISEL

About the hosts
Born Tel Aviv is an R&D lab that co-creates bespoke futures for daring pioneers. Its focus is on R&D projects of transformative innovation next to exploring alternative futures and experimentation. Their extensive experience is mostly around developing and strategizing human-centered ecosystems.

Itai is the founder of Born, a lecturer and a researcher. His job is being a catalyst for organizations and its people to the new radical new world. He focuses on stimulating and enabling smooth transitions by creating and structuring concepts, prototypes, and special programs matching the needed competencies and practicalities for an exciting tomorrow, starting today.
Itai collaborates with a superb global network of hands-on professionals in creating value for intrapreneurial & entrepreneurial organizations, agencies and educational institutions. That is also what draw Itai a to participate in the Global Children's Designathon.

About the event
The group of children is an interesting mix of different religions (Jews, Christians and Muslims) and levels of knowledge on robotics.

TUNIS, TUNISIA

MEDINA WORKS: HOUDA GHOZZI

About the host
Tunis participates in the Global Children's Designathon for the second time in a row, with Houda Ghozzi in the lead. Houda is an education and entrepreneurship expert bringing over ten years of experience in academic teaching, curriculum design as well project management. She was the coordinator for the Dicamp Master Program specialized in Innovation Management and is actually the program director of the Open Start-up Competition Tunisia (OST) in partnership with Columbia university and specialized in developing impact ventures using technology to solve global problems.

About the event
Medina Works is partnering with Designathon Works for the second year now by hosting the GCD in Montreal and Tunis. There are two great teams of facilitators (social innovators, educators, tech professionals) who are all passionate about the event. Medina Works is very excited as they know from previous experience that the team will get to collaborate with great co-facilitators, to connect with like-minded hosts from around the world and most of all, to work with children who always amaze them with their creativity and inventions. Let's Designathon!

Smart Green Roundabouts

Team: Nour (7), Alya (12), Fatma (11) and Mohamed (8)
Topics: too much water and water shortage

Smart Green Roundabouts collect and store rain during floods. This water is pumped-up and used to irrigate plants during summer time.
This solves the problem of water shortage in Tunisia.

A Plastic Detection Submarine

Team: Lina (9), Maya (9) and Aicha (7)
Topic: water pollution

The team wants to solve the problem of pollution in the ocean. They propose a submarine using a plastic detection system that collects, stores and recycles plastic.

A Rainwater Collector

Team: Youssef (11), Selim (12) and Emine (12)
Topic: water shortage

The team wants to solve the problem of water shortage. They offered a solution to collect rainwater and filter it in order to be able to re use it.

VANCOUVER, CANADA

ZITA BOTELHO, SHAYNA RECTOR & JESSICA MCILROY

About the hosts
The Global Children's Designathon Vancouver is hosted by Zita Botelho, Shayna Rector Bleeker and Jessica McIlroy. These three friends with school aged children of their own, were compelled to help bring the Designathon to Vancouver.

Zita Botelho has been working on a variety of environmental issues for the non-profit, private and public sectors, both locally and internationally. She has lead the development of water policy and legislation while working for the government of British Columbia. She currently works as a consultant, leading a number of projects including the reFRESH Water Lab.

Shayna Rector Bleeker spent a decade convening dialogues around climate change and energy transitions with Shell. Being the daughter of teachers she has always had a passion for learning. She now works as a Corporate Communications and Management Consultant at the intersection of communication, strategy, systems and design with Theory and The Tantalus Group.

Jessica McIlroy is the Executive Director at BC Cleantech CEO Alliance. She is a sustainability strategist, passionate about the creation of a low-carbon, equitable economy. She has worked and studied the clean tech, energy and sustainability sector for 15 years.

A Floating House

Team: Sam (10), Miles (7), Tea (10), Eve (7)
Topic: too much water & water pollution

Ditch and drainage system that is built around houses and a house that floats up if there is too much water.
The ditch has sensors that release the house from foundations and enable the house to float when flood waters come high. Additional filters remove pollutants, "like stuff from the gas stations and dirty operations not equipped with this flood water system" and then filter water and deliver clean water back to the houses while they are cut off from systems damaged by flooding.

100% Recycled Home-Made Waterfilter

Team: Devika (10), Anais (7), Anaya (10) and Itziar (8)
Topic: water pollution

Water filtration system that can be used to turn polluted and dirty water into clean water. It can be used in a house or scaled up for a community. Since this is a 'home made water filter' made of 100% recycled/free materials, it will help people with no money to access clean drinking water.

SAP" Système Anti-Pollution

Team: Mateus (9), Ines (9), Nael (9), Madalena (7) (not pictured)
Topic: water pollution

This is a robot that travels through the ocean and sucks up plastic and pollution. It also turns the plastics into energy to power itself. Last but not least the robot is capable to monitor the water quality.

ZAGREB, CROATIA

DESIGN DISTRICT: IRA PAYER & LOVORKA SRSEN

About the hosts
Design center Zagreb is a young non-profit organization that focuses on organizing many different design projects, and aims to promote the ways in which design impacts people's lives.

About the event
Design Center Zagreb organized the Global Children's Designathon last year, and a Designathon in June, and was profoundly touched by the impact it has on children and the people surrounding them. Both Designathons left a sense that thorugh these workshops children can really make a difference.
The Global Children's Designathon 2017 took place in the Museum of Contemporary Art in Zagreb. This very new building with its open and spacious rooms was the perfect location to get the children in the creative mindset.
There was a great team of 6 facilitators, designers and architects, guiding the children through the day. Around 33% were boys and 67% girls. The Design Center Zagreb would like to make additional efforts in the future to make sure that the Designathon is also open to children from disadvantaged circumstances.

Robić

Team: Mara (8), Nera (8), Marie (6), Carla (9)
Topic: water shortage

A robot called Robić that gathers water from the clouds (fog, mist) in the mountains, filters it and than transports the container with purified water to villages in the bottom of the mountains.

Vacuum Pump With Water Filter

Team: Tibor (7), Nikola (7), Luka (8), Marko (12)
Topic: water shortage & pollution

A machine that functions as a vacuum pump that pumps out water from the ground in the event of water shortage on the surface and filters it.

Flower Shaped Sensor

Team: Sara (11) and Iskra (8)
Topic: water shortage.

A flower shaped sensor device that supports rational water usage. It is attached to the faucet and its petals symbolically fall off and it "dies" as soon as the usage of water crosses a given amount.

'OUR GREATEST NATURAL RESOURCE IS THE MINDS OF OUR CHILDREN.'

- Walt Disney

THANK YOU!

First of all, thank you to the 600 children from Amsterdam, Chennai, Clearwater, Dar es Salam, Dublin, Dubai, Duisburg, Johannesburg, London, Milan, Montreal, Nairobi, Panjim, Singapore, Tel Aviv, Tunis, Vancouver and Zagreb. Children, you are remarkable inventors and we believe you will play an important role in designing a better future for us all!

To all the city hosts, including their facilitators and expert panels who made this global event possible: Ira Payer, Lovorka Srsen, Zita Botelho, Shayna Rector, Jessica Mcilroy, Houda Ghozzi, Itai Talmi, Nissan Graisel, Adrian Lim, Prof. Lim Tit Meng, Sammy Mardolker, Mark Kamau, Rym Baouendi, Chiara Diana, Elena Marangoni, Karien Stroucken, Tom Doust, Phuti Manguba, Gisele Legionnet, Luma Shihabaldin, Nadyn Kesserwany, Marie Lonergan, Nancy Sumari, Paul Haberstroh, Shammy Jacob and Charlotte Van 't Klooster.

Other persons who played a significant role in creating of this report:
All ethnographers conducting the research under the inspiring leadership of researcher Mar Cuervo,
Tessa Askamp, Designathon Works board members, Neil Simmons, Carel Neu berg, Henk Ovink and Wietse van der Wert, Mark Vernooij and Oona Eager.

A very special thank you for the support to the Expo Live, an Expo 2020 Dubai Initiative, and to our sponsors and partners that we are proud to work with and who played a significant role in the process: Patagonia, City of Amsterdam, Talud, Bugaboo, Yoxi and our local partners: OBA and Waternet.

Each and all of you have played an important role in realizing the global event and this report:
The Global Voices of the Next Generation on: Water.
Thank you!

Designathon Works,
Emer Beamer
Ina Conkic
Anne Sallaerts

SUPPORTED BY

EXPO LIVE

An Expo 2020
Dubai Initiative

patagonia

City of Amsterdam

talud

bugaboo

yoxi

Let's create a better future together!

www.designathonworks.com
Designathon Works
@Designathons
designathons

DesignaThon WORKS