



Hack the Cape Town Water Crisis

24th & 25th February 2018
Cape Town Science Centre

What is a Hackathon?

A Hackathon is a form of problem solving. People come together virtually, over the web and in person, to engage in creative discussion to solve real world problems. It emerged from the computer industry although today its usage is far broader. As Wikipedia puts it 'The word hackathon is a portmanteau of the words hack and marathon, where hack is used in the sense of playful, exploratory programming, not its alternate meaning as a reference to computer crime.' - Wikipedia.

Why are we doing this?

To collaboratively develop and discover innovative solutions to the Cape Town water crisis utilising global and local wisdom, energy and passion.

What do we want to achieve?

- Innovative, interdisciplinary thinking and ideas from a diverse community of people that contributes substantially to the design, adoption and implementation of innovative solutions to the Cape Town water crisis
- Effective global design collaboration leading to real and scalable, open source solutions that can be shared with other water-stressed cities around the world

Are there prizes?

- SAREBI (The South African Renewable Energy Business Incubator) will be offering a number of valuable Master Incubation classes for water innovation to the technological projects with the best potential.
- We will invite a variety of funders to continually monitor the hackathon website to monitor progress and with future funding potential.

What will happen over the two days?

- We will engage with a glocal (global + local) community of willing, able and passionate people who have perspectives and ideas to contribute to the thinking around the Cape Town water crisis.
- Out of our specialist inputs, group conversations and hacks we will develop a range of actionable solutions to be offered up to those who have the energy, passion, commitment and resources to implement.
- Our engagement will be captured and may serve as a resource to other water-challenged cities and communities around the world.

How will we contribute and participate?

Those who joining us at the Cape Town Science Centre (CTSC), located at 370B Main Road, Observatory, Cape Town, will arrive on the day to engage in a facilitated process, with input from specialists, to explore, ideate, hack and develop solutions to the water crisis. We will be joined virtually, on line, by innovation teams from around the world, who will collaborate in an on-line Hackathon to inspire innovative thinking and develop solutions.

Who will be there?

- See speakers list [here](#)

Activities

- Global hackathon
- Variety of speakers.
- Exhibits - Water technology and DIY
- Workshops - Water savings, harvesting, treatment and DIY
 - The 25 Litre challenge
 - Take the 25 Litre challenge to your school or community
- Family friendly with kids activities

- Community asks panel of experts about Day Zero
 - Preparing for Day Zero
 - How to survive Day Zero should it arrive

How much will it cost me?

There is a **R25 fee* to access to the Cape Town Science Centre and thereafter there will be no additional fees**, other than your time, energy and commitment. An on-site coffee shop and a Food Truck will be available for refreshments. The organisers and facilitators are all specialists in their fields who are working for free to contribute to this important issue. **(The Cape Town Science Centre (CTSC) is a registered NPO and PBO and the entry fee is to cover basic venue costs for this event)*

Where, when and what time?

Saturday, 23rd Feb, 2018: 9am to 430pm (full schedule below)

Sunday, 24th Feb, 2018: 10am to 430pm (full schedule below)

Cape Town Science Centre www.ctsc.co.za

- Keynote talks and the hackathon itself will take place in the SAP Auditorium in the CTSC
- All other talks and panels will take place in the CTSC Boardroom
- Exhibits and workshops will take place in the science centre's Main Exhibition Floor and the Courtyard(weather permitting)

Global hackers click on the links on this website.

we would greatly appreciate it if you could stay for both days but understand if you can't.

OK, so what's the agenda?

23rd February

- Welcome to the Hack, ground-rules and process
- Opening Keynotes talks: Dark clouds, Silver linings – how we can build a better future out of a Water Crisis!
 - Anthony Turton - New Paradigm of Abundance
 - Gunter Pauli - How to convert a shortage of water into a source of water
 - Olivier Maes and Dennis Karpes of JustdiggIt - A systemic change: restoring the water cycle

- Bernelle Verster - Hacking scale: Sexy innovation, and then what?
- Complete bios and talk descriptions are [here](#).
- Understanding the issue (group engagement around a journey map; mind map, venting)
- Understanding the themes & issues at a deeper level - Causal Layered Analysis (CLA)
- Sign up for groups
- Hack like hell! - group work & hacks

24th February 2018

- What's been happening? – feedback & reflections
- Morning hack session
- Lunchtime musical entertainment by Roots Grown Deep
- Afternoon hack session
- Speakers and Community Panel discussion
- End of hackathon: group sharing of hacks.
- SAREBI judging and award
- Close / wrap Up

What are the rules and laws?

We have adopted the rules and law of Open Space –

1. Whoever come are the right people.
2. Whatever happens is the only thing that could have.
3. Whenever it starts is the right time.
4. When it's over, it's over.

and The Law of Two Feet states that:

"If, during the course of the gathering, any person finds themselves in a situation where they are neither learning nor contributing, they must use their feet and go to some more productive place."

(With thanks to Harrison Owen)

What happens after the hackathon?

The Feb 24, 25 hackathon is just the open ideation stage. Many groups are using the hackathon to find teams who want to work on their project and develop it. Some of these groups even already know which funders would be interested. Some groups are sourcing collaborators and developing funding proposals from the hackathon work. Others still are building prototypes after the event, using local makerspace www.makerstation.co.za. Also, various university teams and hacker teams will be joining the hackathon after Feb to contribute to projects that they choose. If projects become successful, then the Envienta network, Stop Reset Go OSCEDays, Action Foresight and other commons members of the solidarity network contributing to the event will proceed to phase 2, developing global distribution and peer manufacturing network to locally produce goods and services locally in water stressed cities.

What makes this hackathon unique?

1. We are testing a new people's model of collaboration and production that democratizes technology and manufacturing.
2. The specific model of collaboration is called "Cosmo Localization" (Ramos, Bauwens, Kostakis, Papadimitropoulos, Niaros, Dafermos, Benkler) which leverages the internet to develop innovation globally, which creates open source designs for all, which is then available to everyone on the planet to manufacture in their own locale. This is the so called "Design Global, Manufacture Local" model. Open source 3D Cad designs of technologies will be shared through creative commons share and share alike license, with commercialization.
3. Cosmo-localization is smart resource use for innovators without access to capital, but who wish to design something professionally. By going directly to the resource, we skip the traditional requirement for capital. We may still require capital to build the prototype.
4. **Phase 1.** The hackathon kicks off the first phase: the ideation stage to gather ideas, build strong teams and develop a Minimum Viable Product (MVP).
5. **Phase 2.** Is the post event work to refine designs into a real working prototype.
6. **Phase 3.** The third phase will be to bring these ideas into reality. This means working together as a collective, using the brand power of the event, and working with partners to attract suitable funders and crowdsourcing. Final designs will be shared in a design commons and made available to everyone for local manufacturing. This means not only Cape Town, but any water stressed city in the world will have access to manufacture these designs locally. In phase 3, we will develop a global distribution and manufacturing network, onboarding local social enterprises, B corporations, makerspaces, peer production cooperatives to sustainably manufacture the goods or services for the benefit of their local community.
7. Even though SAREBI is offering prizes of Master Business Incubation classes, this is not viewed as a competitive hackathon. We encourage every meaningful

project to “win” and invite all types of funders to take interest and help fund promising projects.

Hackathon rules

1. Participants join by filling out the [online google form](#). If you have a unique idea, we encourage you to enter it and try to put together a global and local team to work on it during and possibly after the hackathon.
2. We will join you to the www.oscedays.org website and open project pages for all suggested projects.
3. If you are a hackathon project proposer, go to your project page and invite other team members. Describe your project at the top and what resources you need (human and other) to finish it. Other global innovators will read your request and may also decide to join your team if they are interested in your project.
4. If you don't have your own idea, you can look at the existing ones and join one that interests you.
5. On the day of the hackathon, each local team will have an internet scribe who will write down and take pictures, and post all the local collaboration information onto the oscedays project page.
6. Global innovators can then feedback and add their own ideas.
7. If industrial design, CAD design is done, it will be stored on the server (instruction to be provided)
8. Different teams will join after the Feb 24, 25 hackathon and may contribute after the event.
9. All knowledge is Creative Commons with commercialization. This means anyone who uses it and adds new knowledge must share that knowledge with everyone. Commercialization is also allowed by anyone.
10. In June, 2018, OSCEDays will have their global events and any ideas that reach the prototype stage can be showcased to potential investors that we invite to the platform.