FIX THE PLANET

PROTECT OUR SPECIES

INNOVATI°N 360

THE HOME OF INNOVATION

Open ideation on a global scale; or harnessing the imagination to solve big problems in a collaborative and transparent way

Wednesday, June 19, 2019

"LOGIC WILL GET YOU FROM A TO B, IMAGINATION WILL TAKE YOU EVERYWHERE"

– Albert Einstein

Introduction

Imagination opens the door to a journey of limitless possibilities and fascinating discoveries. When applied to big problems, it has proven over and over again that imagination can uncover powerful solutions.

The United Nations' 17 Sustainable Development Goals represent some of the world's biggest problems. Our Planet Earth is at a crossroads in many ways. But, what is also true is that many people are passionate about playing a role, and contributing to the solutions, but don't know how.

We think that open ideation represents a way to capture that participation, and to help people from all over the world to contribute in a safe and transparent environment. We developed **www.fix-the-planet.com** to encourage imagination, to provide 'anyone' with open access to contribute ideas. We aligned our efforts with Earth Day and focused on UN goals 12, 13, 14 and 15. We polled the public from April 22 to June 3.

Our report follows. We were particularly excited to see that 2,000 individuals from 65 countries participated in our maiden voyage. This level of participation and the passion we observed around this process is very encouraging for our future plans, as are the ideas that have been developed and the contribution to our understanding of truly open ideation on a global scale.

Plans include a presentation to the UN in the fall to discuss our report and the ideas generated. Going forward, we believe the fix-the-planet campaign is a foundation for further dialogue, ideation, experimentation and represents a powerful mechanism to engage experts and non-experts alike in solving some of the world's biggest problems

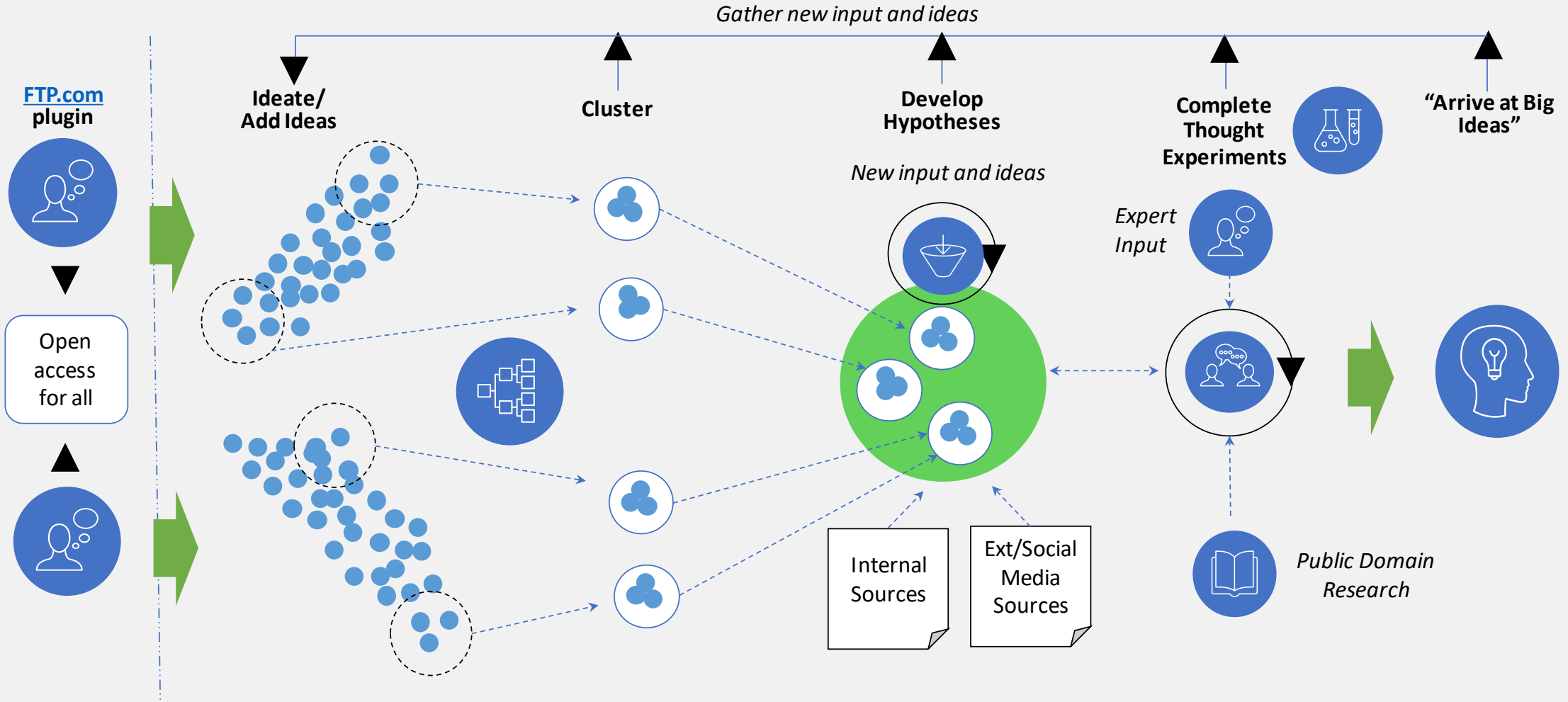
Fix-the-Planet is about imagining solutions to big global problems

Four goals were chosen from the UN's *2030 Agenda for Sustainable Development* that includes 17 Sustainable Development Goals (SDGs), we then identified 2 themes per goal to begin the dialogue

2019 Earth Day Focus				
Ideation Themes	• *The plastic garbage patch* • *Circular business models*	• *4 degrees warmer* • *Climate-friendly energy*	• *Safe drinking water* • *Save the sea turtles*	• *Deforestation of the Amazon* • *Amphibians in danger*

Fix the Planet was designed to support the imagination of participants

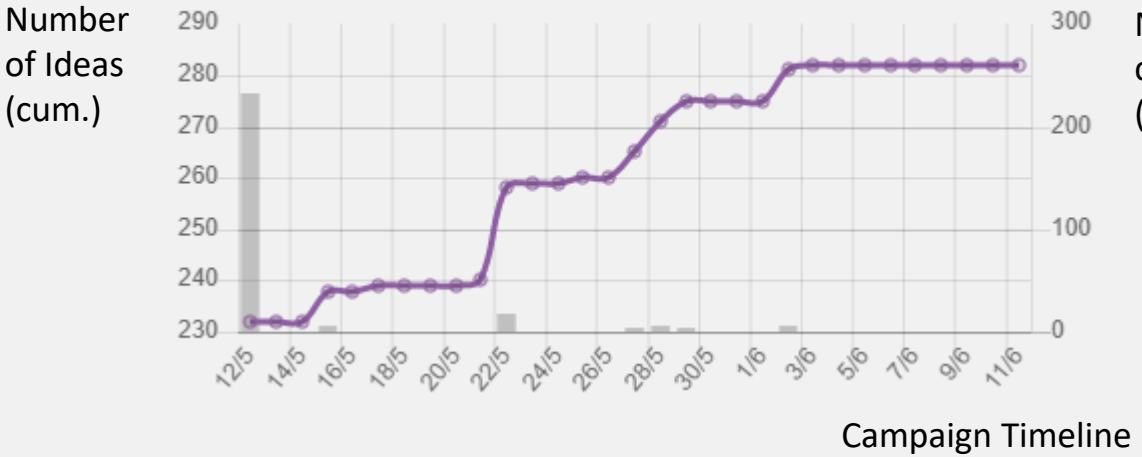
Overview of FTP Ideation Method

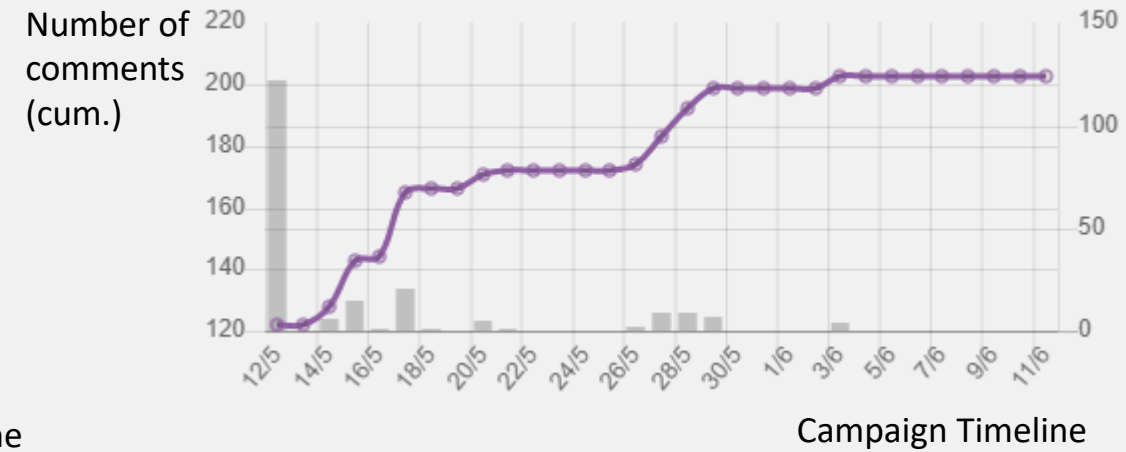


2,000 individuals from over 65 countries participated in the campaign

Ideation Population

282 ideas were submitted





Ideas were submitted and clustered, leading to dialogue

- 10 key countries
- 282 ideas were submitted from about 54 power users, using our ideation plugin/website
- 44 thematic clusters were identified, and this helped focus analysis and further dialogue

Ideas were shared and enhanced

- Many ideas attracted commentary, some with dozens of comments and feedback; the team facilitated additional dialogue with available experts to expand on ideas
- BLOG posts along with several LinkedIn, Facebook and other social media communications
- Goal 12 – Consumption & Production, and 13 – Climate Action were the most popular

We posed questions across 4 goals and 8 themes, asked for ideas, then encouraged an open exchange

Plastic Garbage Patch:
- How can we eliminate the need for plastic?
- How can we recycle the plastic garbage patch?
- How do we deal with all the poisonous microplastics now entering the food chain?

Circular Business Models:
- How can we make recycling easier for the business community?
- How can we increase the reuse of products, reduce production and make a profitable business out of it?
- How can we create a supportive circular business infrastructure?

4 Degrees Warmer:
- How do we eliminate or reduce existing emissions?
- How can we make emissions reduction profitable?
- What preparations should we make now if a much warmer world is inevitable?

Climate Friendly Energy:
- Which are the fastest and easiest to implement, climate friendly technologies?
- Can we make non climate-friendly energy irrelevant?
- Which radical ideas for new energy sources deserve investigation?

Safer Drinking Water:
- How can you make drinkable water from the ocean?
- How do we generate pure water on site and eliminate transportation?
- Can we make drinkable water from other sources?

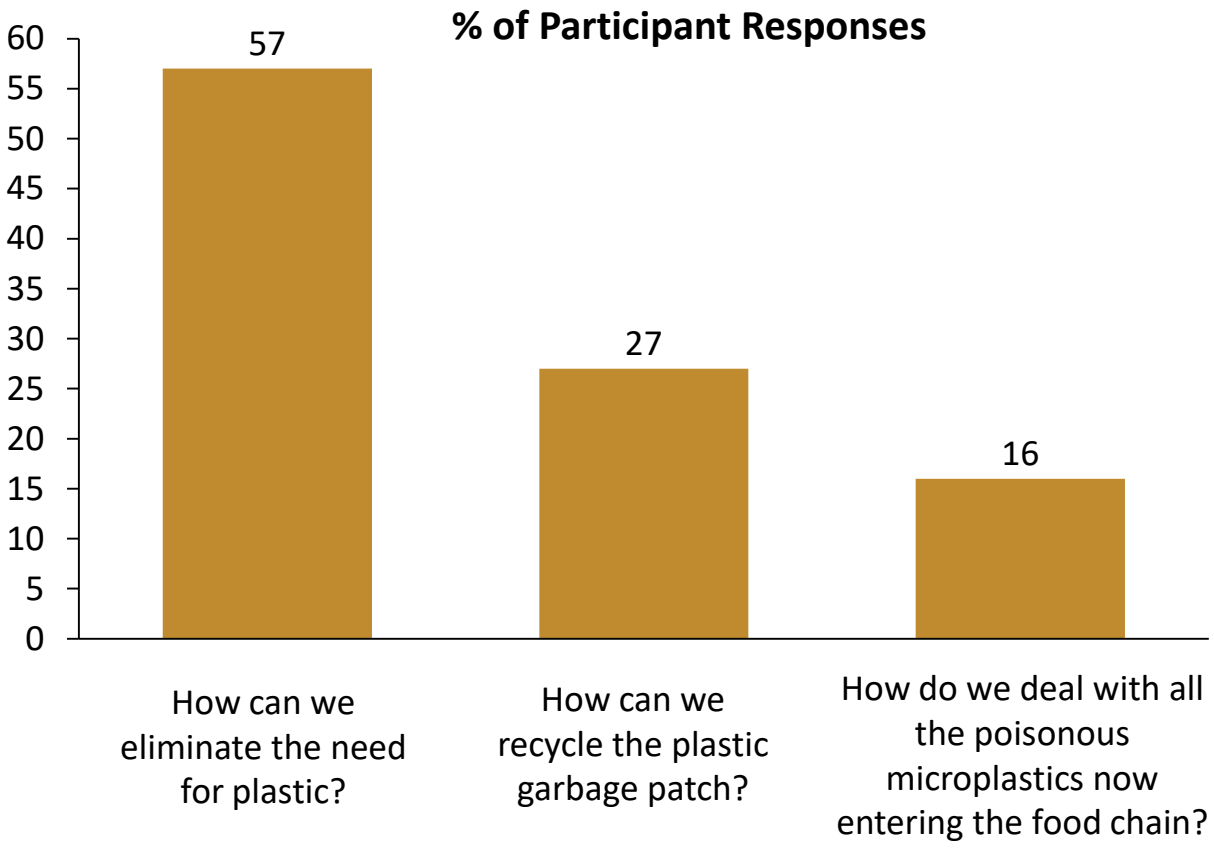
Save the Sea Turtles:
- How can we make sea turtles less valuable to poachers and merchants?
- How do we promote tourism around preserving sea turtles in their natural environments?
- How will climate change affect our plans for sea turtles?

Amazon Lost:
- If we can't reduce the rising temperatures, how else can we save the rainforest?
- Can we create a new Amazon?
- How do we redirect government-sponsored deforestation efforts that have intensified in the Amazon?

Amphibians in danger:
- How do we find out for certain what is killing off the frogs?
- What can we do to protect tree frogs in the wild and preserve their ecosystems?
- What are some original business models that could help fund amphibian rescue operations?

UN Goal 12: Production and Consumption – The plastic garbage patch

A garbage patch (made primarily of waste plastics) has been found in the Pacific Ocean and the patch is now bigger than Mexico (1.6 million square km). This has not only killed off animals, including whales and other endangered marine life, the toxic chemicals it has released into the food chain may be weakening the human immune system.



Samples of ideas submitted

- Introduce seaweed pouches for sports drinks at sporting events to reduce trash.
- Encourage a use-based business model
- Develop a comprehensive market for trash – make second-hand cool!
- Take away food (like rice and noodles) wrapped in banana leaves. It's a sustainable solution.
- Cover food with a washable layer instead of being packed in plastic.

Big idea: Eliminate End User Trash Re-cycling

Eliminate end user trash sortation for re-cycling. Return to municipal collection and sortation of trash and charge for cost recovery thus radically reducing non-compliance and illegal dumping.

UN Goal 12: Production and Consumption – The plastic garbage patch

Make recycling less complicated

Limit end user sortation to wet (organics) and dry (all other trash) as increasing classes of sortation drives corporate and end user non-compliance and illegal dumping. Collection refusals and fines for non-compliance increase frustration levels and dumping.

Increase returnable incentives

Increase private street collection of discarded trash by creating returnable incentives to include single-use plastics

Increase financial disincentives

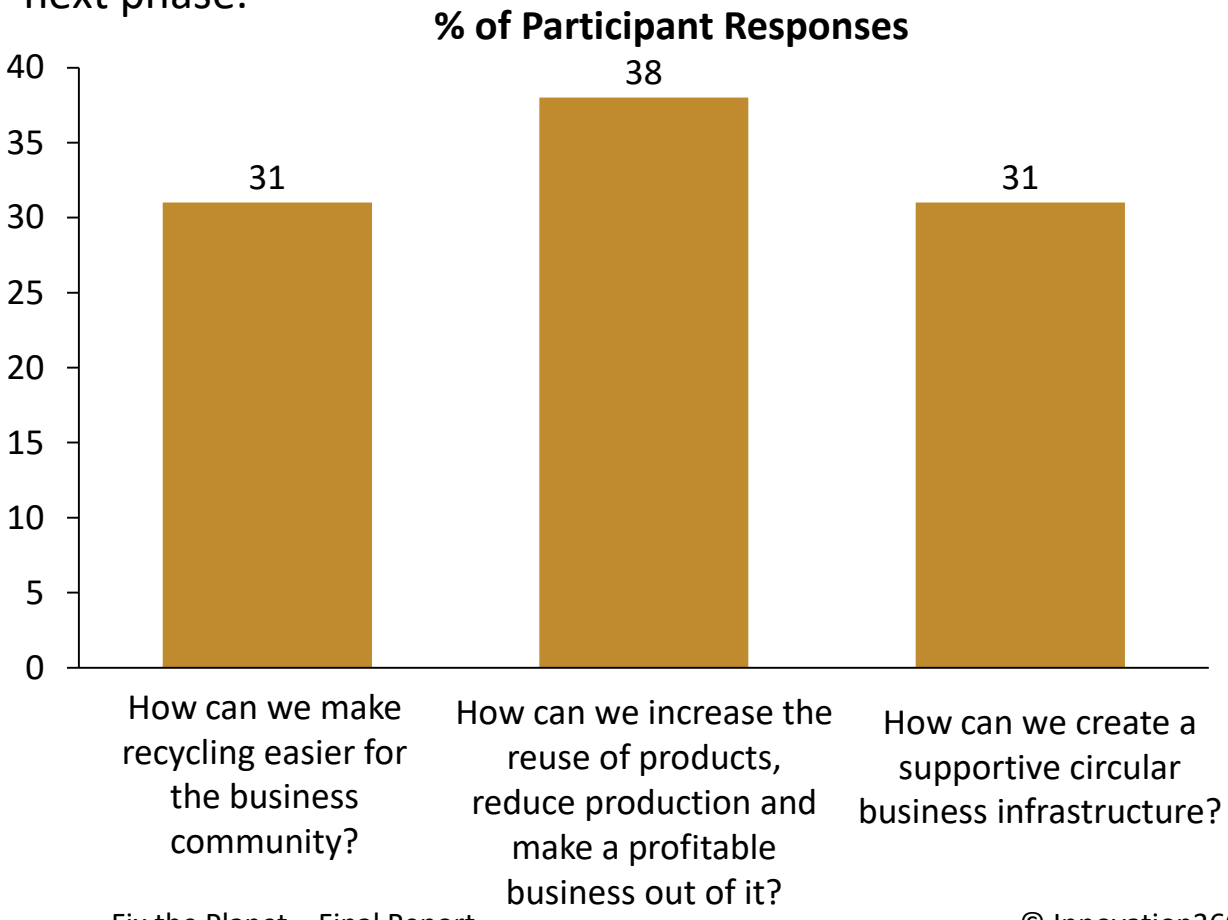
Make it unattractive to manufacture using plastics and other non-recyclable materials in manufacturing thus reducing the collection problem at source.

Focus on key sources

Process the plastics waste from the key global 22 contributing rivers. Focus on processing and recovery solutions from the 22 global rivers which contribute to most of the ocean's plastics.

UN Goal 12: Production and Consumption – Circular Business Models

Trash is piling up and it's not going away. It can take 450 years for some types of plastic to break down. One type of plastic, PET, while recyclable, doesn't biodegrade at all. Meanwhile, most business and industries still think in terms of a linear economy, where resources are transformed into products, sold, and then thrown away. In a circular economy, waste is sustainably recycled and becomes an input for the next phase.



Samples of ideas submitted

- Establish a use-based business model (subscription, usage intensity) for products
- Switch to modular design of products aiming at offering various versions of their products (from frugal to full options) according to user segments, refurbish, recycle, update parts of the product.
- Increase reuse by implementing market drivers to increase reuse of products
- Provide preference on election to global institutions, like the UN Security Council, for those with the best environmental policies, countries that have shifted their consumption patterns the most, the smallest/capita footprint etc.

Big idea: Floating Factory

Create a floating factory to suck in the plastics or nearby ships that can take the waste plastic to the floating factory, which recycles and sends usable plastic back for consumption.

UN Goal 12: Production and Consumption – The plastic garbage patch

Alternative Wrapping

Cover food with a washable layer instead of being packed in plastic

Feedstock for Plastic Printing

With 3D printing technology becoming matured and applications moving into the domain of small items to larger items, we should funnel more plastic garbage into feedstock for 3-D printing.

The use of plastic garbage includes the building of homes (modularization), car parts, plane parts, and so many other useful applications.

Decompose Plastic

Break down the plastic for disposal. Bacteria can be a powerful tool in decomposing (just about) anything – and *Ideonella sakaiensis* breaks down PET.

Fake Ice

Make fake ice (built from recycled or broken-down plastic) in the Artic Ocean to replicate the impact of the ice pack – stop the increase in warming

Big idea: Leverage the whole

Foster collaboration and use commodity exchanges for recyclables

UN Goal 12: Production and Consumption – Circular Business Models

Provide financial incentives

Currently, manufacturing new is less costly than recycling used materials. Provide financial for using recyclables versus manufacturing new when recyclables are available to close the gap

Mass recycling of kinetic energy in manufacturing

Improve technologies which recycle the kinetic energy produced from transportation vehicles, manufacturing processes, and equipment

Establish Circulabs in high density business areas

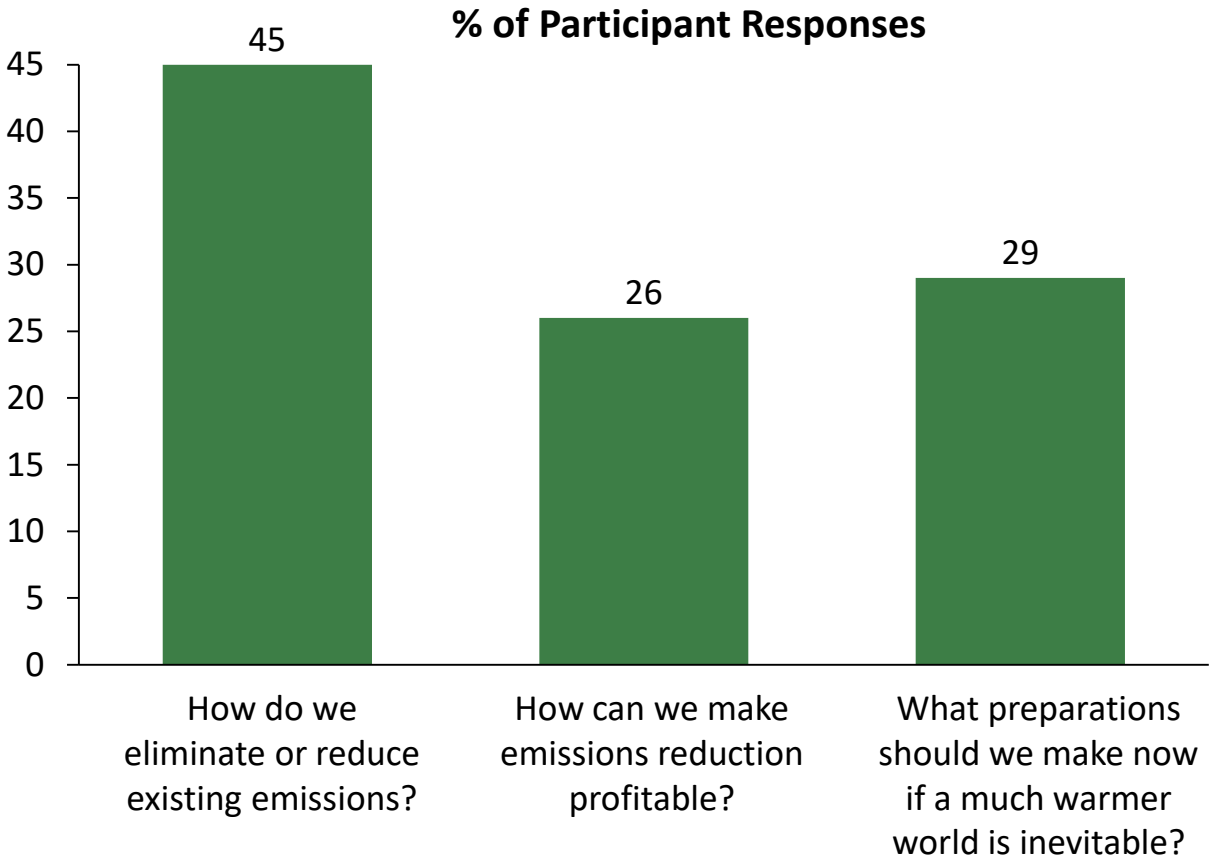
Establish a network of local ‘circulabs’ located in high density business parks and industrial parks with the mission of recycling/redistributing business waste.

Foster power co-generation

Develop technologies for reducing the costs of co-generation of power

UN Goal 13: Energy & Emissions – 4 degrees warmer

If emissions continue at current rates, the planet will warm by 4 degrees C by 2100. That is likely to trigger unimaginable destruction, including intensified droughts, floods, severe storms, heat waves, and a rise in sea levels by three feet. International agreements like the Paris Accord won't be enough and they are not even being followed.



Samples of ideas submitted

- Produce hydrogen for cars by water and sun locally and accomplish 0% emissions.
- Design a solar panel umbrella that folds out on the roof when the car is parked.
- Push for local production to reduce transport – e.g., rooftop and community gardens, convert land close to towns and cities to farmland.
- Explore utilization of emissions into other processes as a product. Register the initiative to the government and create innovation competition, where success based on certain parameters will be acknowledged and recognized.

Big idea: Generate renewable energy closer to consumption

Significant energy savings from more efficient access to renewable energy both at a distance from consumption, and at the site of consumption.

UN Goal 13: Energy & Emissions – 4 degrees warmer

Renewable energy

Significant energy savings could be obtained through more efficient access to renewable energy generated both at a distance from consumption, and at the site of consumption.

Produce closer to demand

Numerous new technologies could be available, that generate energies closer to the location of the demand.

Improve energy storage

Continue to develop energy storage technology to access surplus energy generated during peak periods

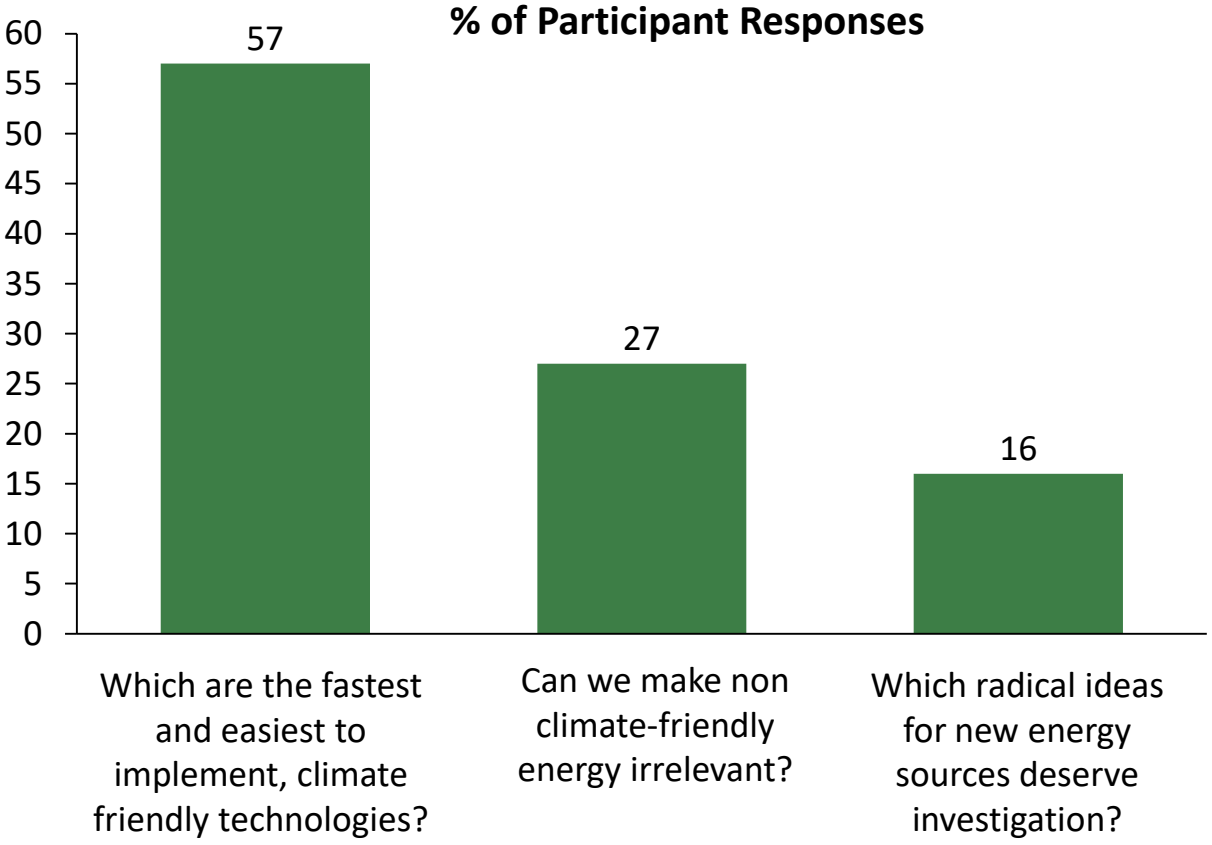
Invest in Innovative Sustainable Energy Technologies

For example, Incremental improvements to existing technologies such a inorganic-based (silica) solar cells provide limited opportunities for improved performance. In this case, organic (carbon-based) cells could represent a quantum-leap in solar cell efficiency.

Sample sources: https://www.bain.com/insights/how-utilities-can-make-the-most-of-ders-energytoday/

UN Goal 13: Energy & Emissions – Climate-friendly energy

Converting to climate-friendly energy technologies requires simultaneous coordination of government policy, technological breakthroughs, public and private investment, and consumer interest. The likelihood of a best case scenario is alarmingly low because many global leaders deny there is a problem or have said that nothing can be done about it.



Samples of ideas submitted

- Put a solar reflector in space that directs solar rays to the designated solar power stations with special solar collectors. This system might provide 24/7, all year round solar energy source for global use
- Use animal waste as an alternative source of energy, e.g., Northern Ireland uses chicken litter for energy
- Use the facades of high buildings to produce our energy as they stand in the sun
- Harnessing the constant flow of tidal and undersea currents to generate hydro electricity

Big idea: Scale up new energy sources

Invest amounts saved by removing current inefficiencies in pricing and market efficiency

UN Goal 13: Energy & Emissions – Climate-friendly energy

Make electricity retail markets more flexible

Reduce rates when power not needed so that clients could opt to charge phones. Electric cars etc when electricity is cheapest.

Change tax subsidies for renewable energy

In some cases, it is more expensive for a solar power company to stop production than it is to pay a firm in another state to take the electricity because of the structure of tax benefits. So, solar plants are incented to keep plants running at full capacity when power is not needed.

Create an active architecture responsive to environmental conditions and changing homeowner needs:

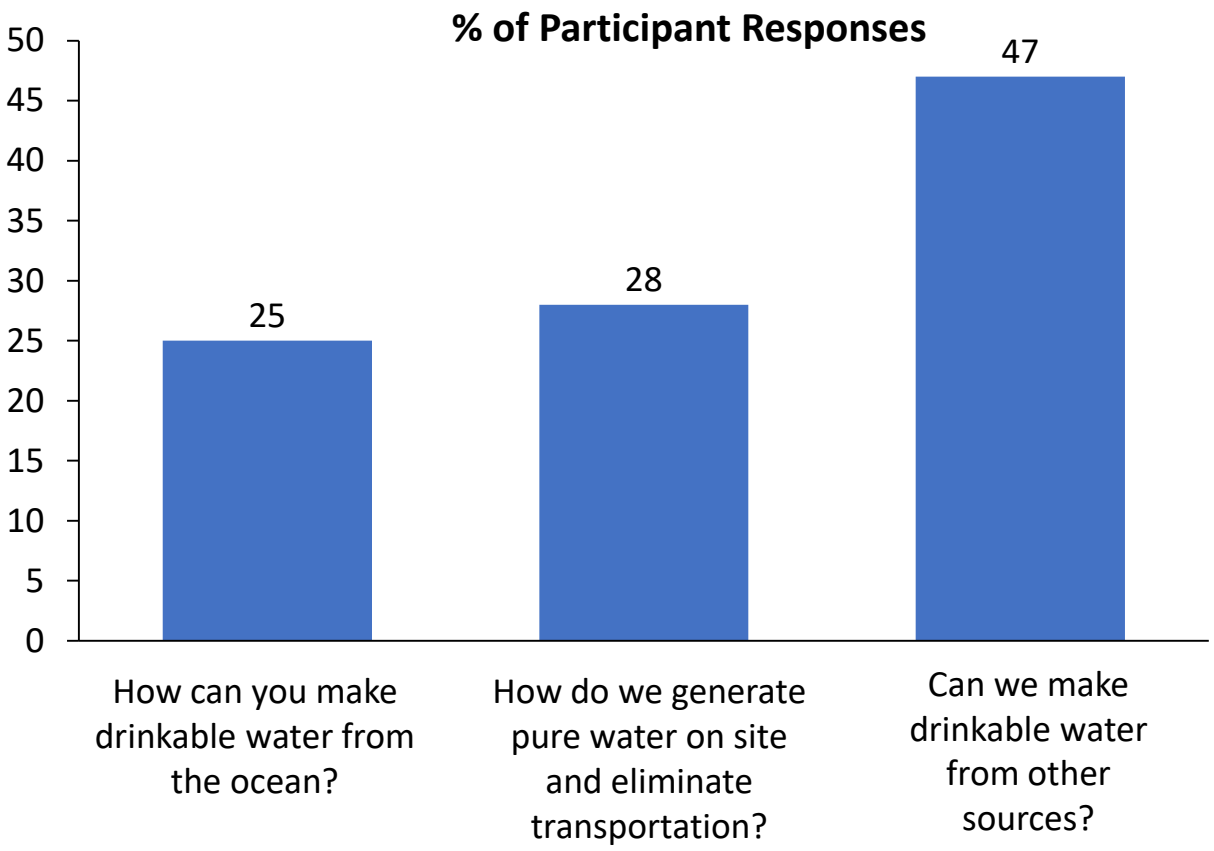
Existing buildings and new structures neither capture nor retain available energy. Structures such as solid softwood would sequester carbon. Lightweight solar canopies that could be mounted on urban rooftops, bringing renewable energy to dense urban areas.

Improve efficiency of air conditioning and other end-user electrical goods

Dual approach that would involve graduated tax on energy inefficient goods and investing in research to lower energy consumption. For example, improve ability to absorb water at various humidity levels.

UN Goal 14: Ocean & Marine -- Safer Drinking Water

3.6 million people die every year from drinking infected water. 780 million people do not have access to safe water. More than 35% of the world, 2.5 billion people, do not have access to sanitation. This is on a planet where the surface is 71% made of water.



Samples of ideas submitted

- Convert fog into drinking water. Super-sized moisture collection systems could allow people living in coastal or mountainous areas to convert fog into safe drinking water
- Use sea water to make clean drinking water through green technology purification plants (run by solar power)
- Recreate old water sources and prevent water run off. By reforming the eco systems the water sources can be re-established.
- Full-scale plants utilizing anaerobic bacteria may be capable of processing millions of gallons of wastewater per day into refreshing clean water

Big idea: Dramatically increase Government aid for desalination

Invest more in existing science to scale desalination plant operations to allow more safe drinking water for underprivileged communities.

UN Goal 14: Ocean & Marine -- Safer Drinking Water

Using "Super Sand" to clean water

Researchers have uncovered a possible solution using "super sand" or sand coated in an oxide of graphite

Use geothermal energy instead of petroleum to desalinate

The International Desalination Association reported 14.7 billion gallons of drinkable freshwater a day is created by 13,000 desalination plants around the world. A lot of these plants use oil to heat sea water and remove salt.

Mega Desalination

Build on existing desalination plants. Large seawater reverse osmosis (SWRO) desalination plants can provide significant water

Giant desalination plant

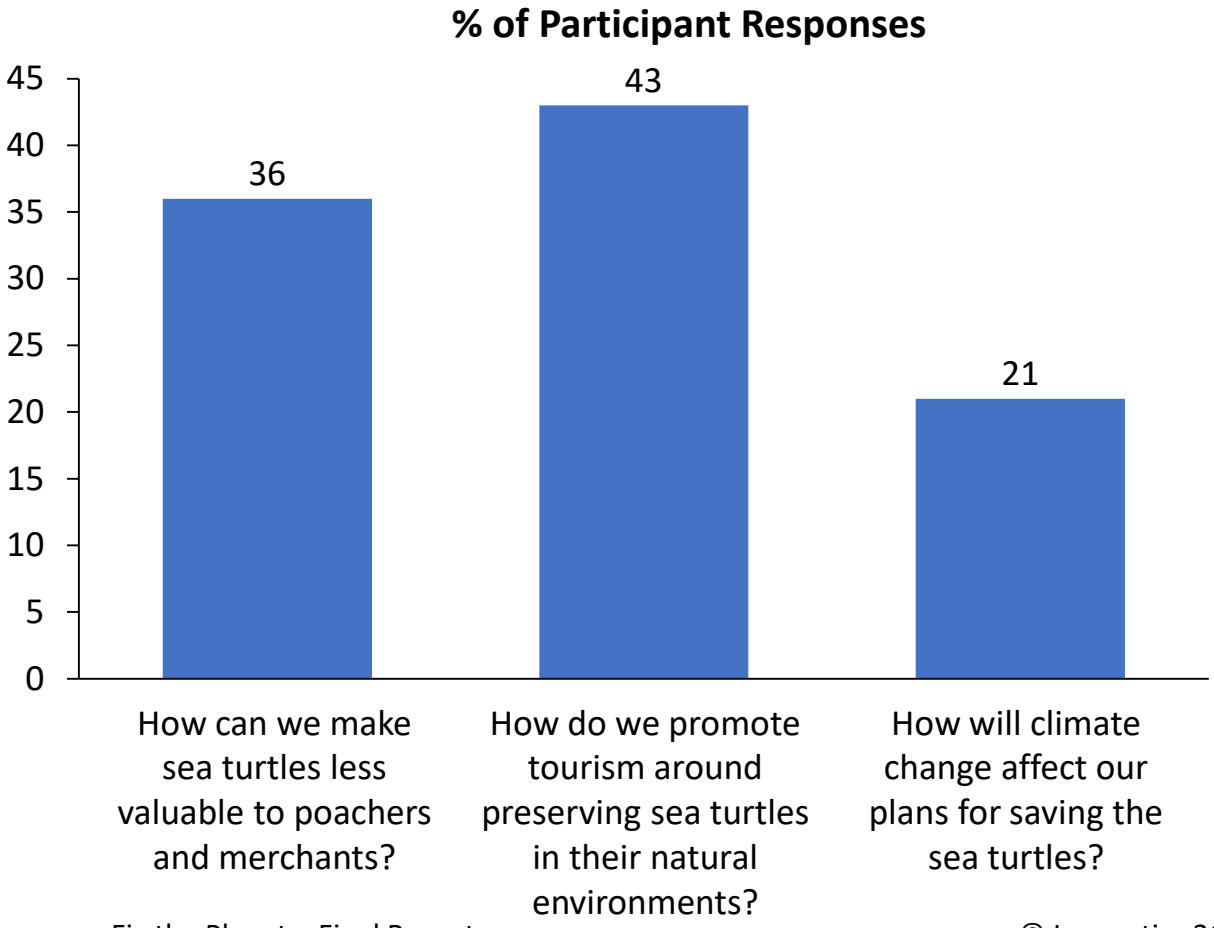
Scientists looked at desalination, but it's all still inaccessible to places and it would cost too much to implement on a large scale.

Construct several giant desalination plants that can convert the sea water to drinkable water.

Some source material: https://www.koshland-science-museum.org/water/new/en/Overview/Why-is-Safe-Water-Essential.htm , https://en.wikipedia.org/wiki/Desalination

UN Goal 14: Ocean & Marine -- Save the sea turtles

Sea turtles are disappearing everywhere. Nearly all species are endangered. They are threatened by poachers, over-harvesting, habitation destruction, and climate change. The loss of sea turtles will disrupt beach and dune ecosystems, and will result in massive blooms of deadly jellyfish.



Samples of ideas submitted

- Raise the jail sentence to 10 years in jail for purchasing of sea turtle shells
- Create private zones/areas for sea turtles to show that there are valuable and necessary for the sea world ecosystem.
- Build aquariums in the water and bring us to them instead of the other way around. Aquariums in the ocean could be on a platform with under water tunnels made out of reinforced glass where you can view the magical world of the sea and leave it untouched

Big idea: Create a “sea turtle” adoption program through salary sacrifice

Increase awareness in the importance of sea turtles to marine ecosystems through productization.

UN Goal 14: Ocean & Marine -- Save the sea turtles

Better educate the young

Younger generations could be educated to reduce the demands. Make artificial turtle eggs and other local delicacies to substitute sea turtle for turtle eggs.

Turtle Reserves

Create private zones/areas for sea turtles to show that there are valuable and necessary for the sea world ecosystem.

Plastic Jewelry Line

By launching a reused plastic jewelry line through the plastic collected from the ocean will reduce the amount of plastic the turtles can choke on.

Adoption program through salary sacrifice

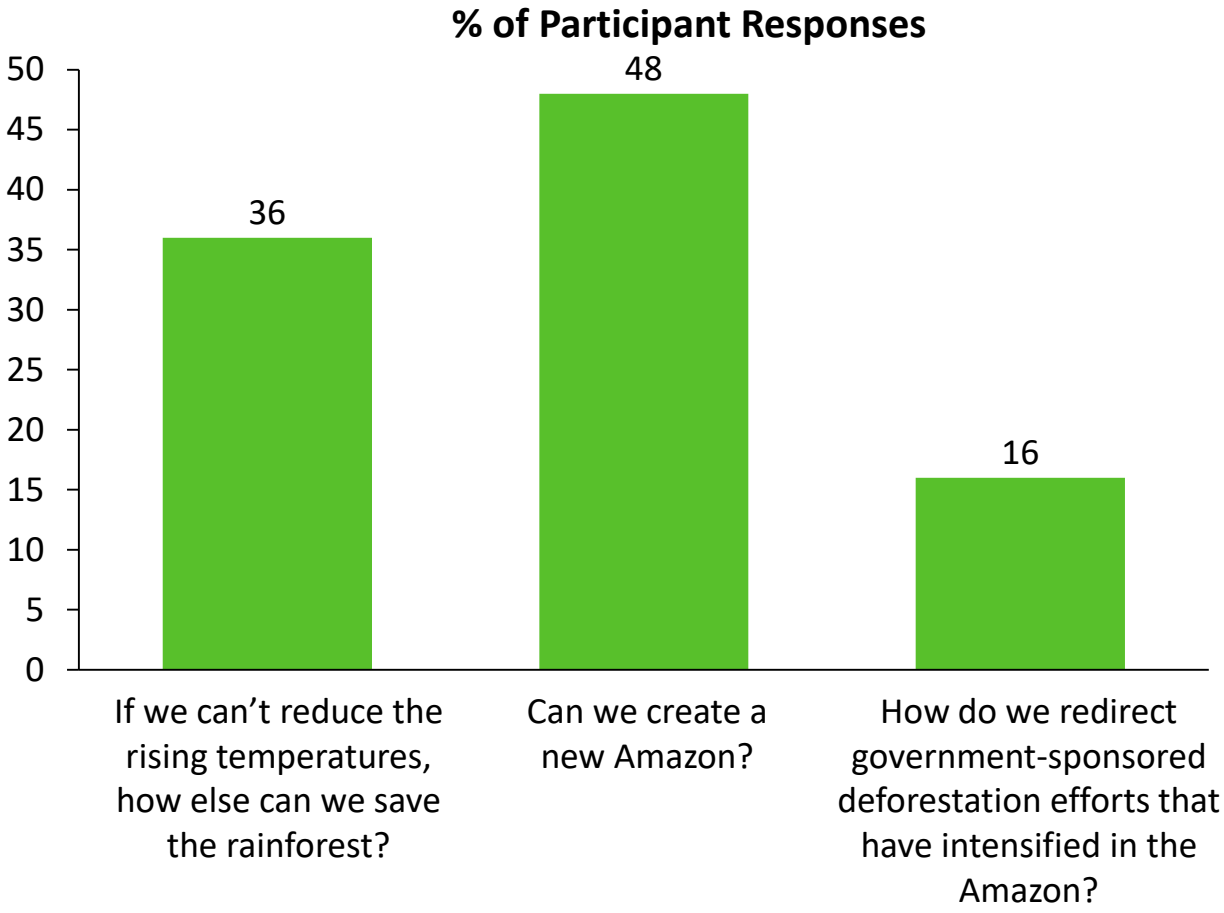
Discourage illegal trade and consumption

Create a sense of responsibility to stop polluting the sea by tagging sea turtles with tracker and camera for live telecast for the adoptive parents to view the turtle's journey and the challenges it faces with the polluted sea

Additional reading: https://www.worldwildlife.org/species/sea-turtle

UN Goal 15: Land & Species – Amazon lost

A 3 degree C increase in world temperatures will destroy 75% of the Amazon rainforest, which is home the planet's greatest pool biodiversity. 10% of the world is a tropical ecosystem like this, but that is where 90% of world's known species live. Losing the Amazon will have devastating implications we can't predict.



Samples of ideas submitted

- Lower the temperature by increased shadow and increase water dynamics by planting more endemic and local trees
- "Green Wall" similar to the Sahara to stop the expanding desertification of the region by planting selected trees that will hinder desert expansion
- Reduce CO2 by using an instrument to split up carbon dioxide, using ultraviolet light in a vacuum

Big idea: Create an Amazon “green wall”

"Green Wall" similar to the Sahara to stop the expanding desertification of the region by planting selected trees that will hinder desert expansion

UN Goal 15: Land & Species – Amazon lost

Reduce ecosystem degradation

The root cause of loss of biodiversity.

Reducing the degradation of rain forest trees will slow the loss of green house gasses and improve regeneration of plant and animal diversity.

About 20 percent of the world’s greenhouse gas emissions are a result of deforestation.

Encourage corporate responsibility

Adoption corporate responsibility & sustainability (CR&S) goals and strategies that follow ethical guidelines for environmental laws.

Education

Increase education about how trees reduce pollution -- increase urban green areas by 5%.

Promote the inclusion of environmentally focused corporate totems for sustainable futures through adoption of forests, endangered species habitat, etc.

Increased law enforcement

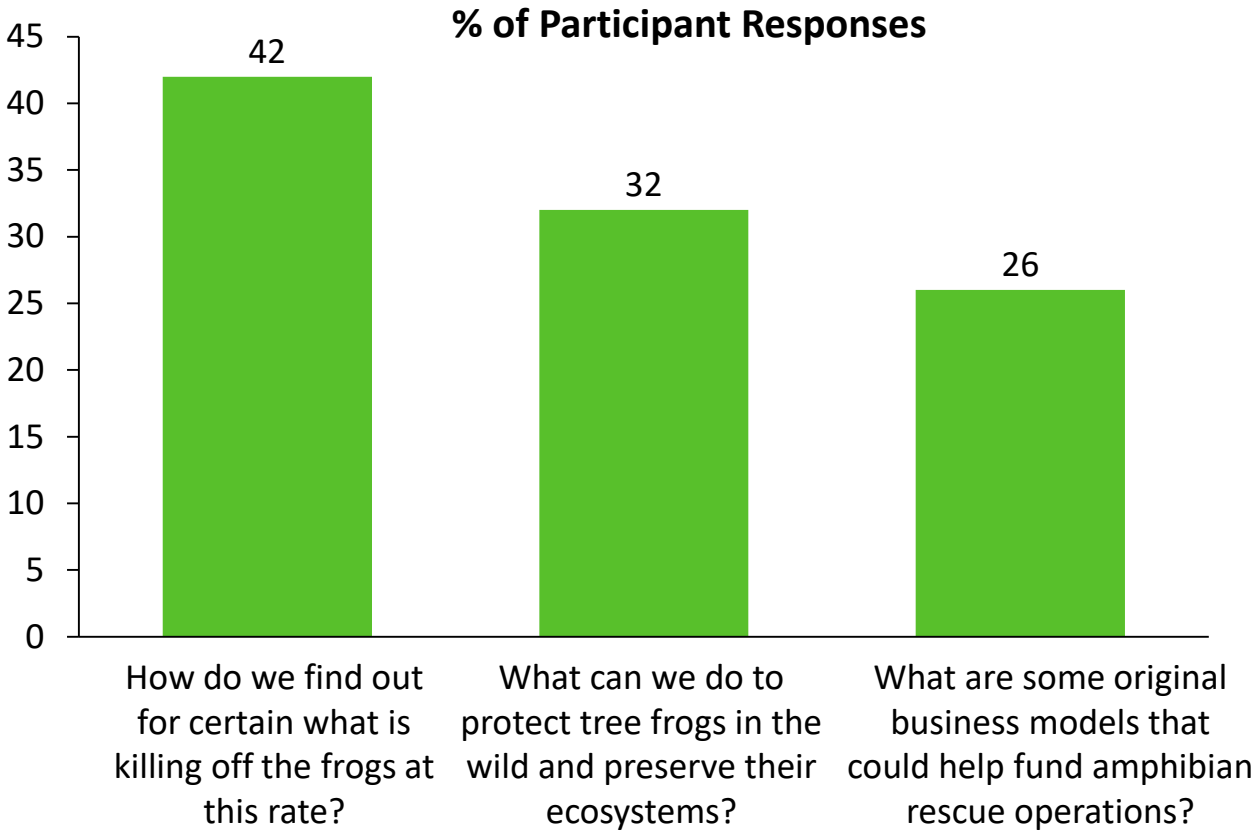
Focus on areas of destruction of protected lands and forests

The 2 million-square-mile rain forest is a major repository of carbon dioxide, playing an essential role in the fight against climate change. It’s also home to 10% of all known plant and animal species. And over the past four decades, the jungle has lost about 18% of its territory, according to Greenpeace.

Additional reading: https://ecophiles.com/2016/07/28/what-you-can-do-save-trees-stop-deforestation/

UN Goal 15: Land & Species – Amphibians in danger

We are now at a turning point because amphibians play a critical role in preventing ecological collapse. Amphibians are the most endangered class of vertebrates on the planet – more than mammals, fish, birds, or reptiles. 41% of amphibians are in danger of being completely wiped out. The two biggest causes of this global die-off are habitat destruction and the chytrid fungus, both of which have been made more lethal by human activity.



Samples of ideas submitted

- More research is needed to determine the root cause of tree frog deaths in the wild. Recreating the environment in the lab may not be possible to get the same results
- Have more buildings where we can control the environment inside for preservation or experiments -- i.e., biodomes
- Set up peer-to-peer microloans to communities around frog habitat areas so local communities can start businesses of their own to help support the conservation of these areas.

Big idea: Invest in behavioural change

Increase awareness of the importance of amphibians to biodiversity and environmental impact to improve commitment to environmental controls.

UN Goal 15: Land & Species – Amphibians in danger

Gamification

Commission a technology company, as part of their Corporate Responsibility & Sustainability plan to develop a video game starring a colorful frog who is fighting for his life.

The Hollywood Treatment

Engage a film company to make an animated movie about frog devastation and extinction (that depicts the frogs as pre-teens saving the world from devastation).

Penalties

Support a coalition of environmental groups to pressure Government action to hold the environment minister accountable to increase inspection operations and issue more severe fines for companies

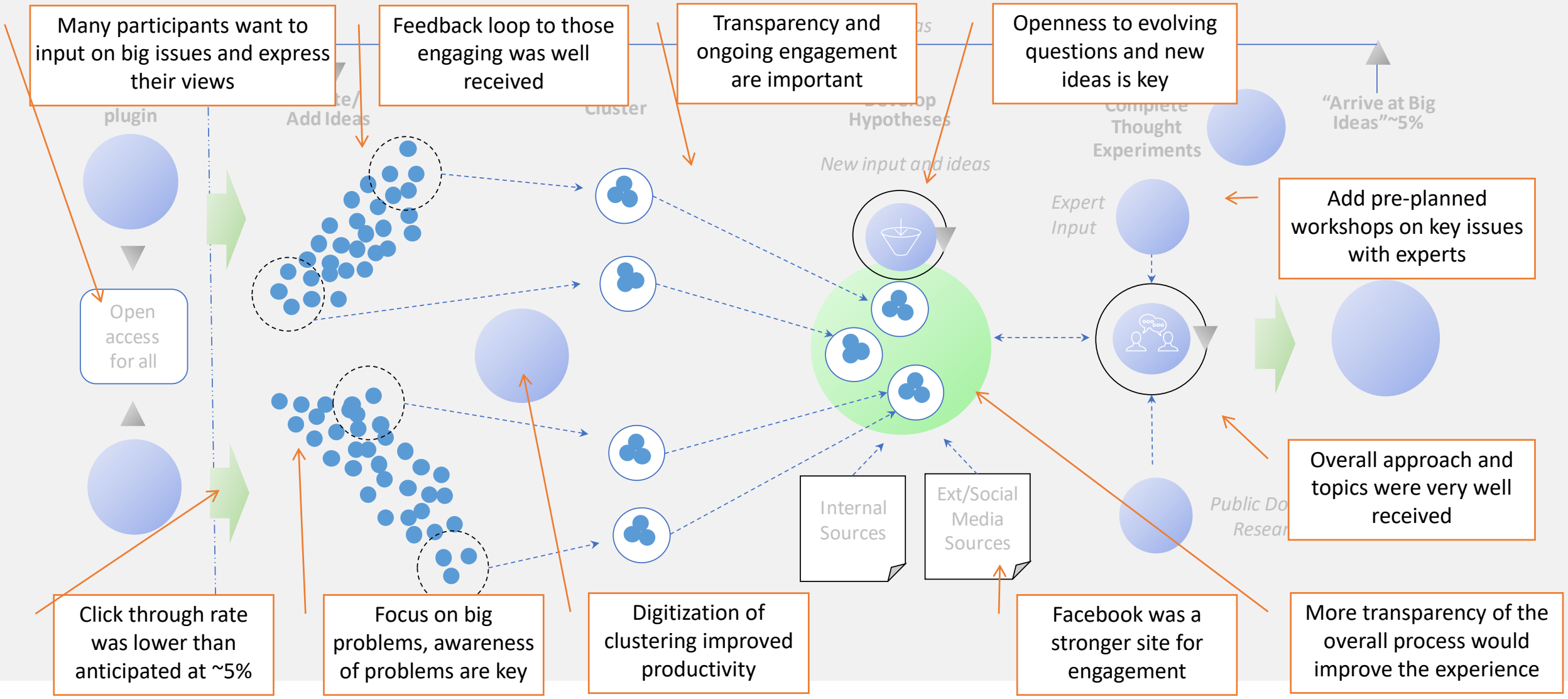
Monetize

What if countries were able to monetize the value of rain forests in another way globally?

Incentivize the long-term value to save the rainforest instead of destroy it for short term gains.

Some source material: https://www.savethefrogs.com/why-frogs/

The power of the platform and what we learned about global ideation



Fix the Planet recap and the promise of open ideation

- **Fix the Planet** reached 65 countries as we addressed 4 of the UN's2030 Sustainability Goals
- Feedback suggests that the "open ideation" approach is particularly powerful when focused on large challenges and systemic issues
- People want to way to play role in the resolution of the issues they care about
- 2,000 participants demonstrated a passion for FTP and recommended more than 282 ideas to solve the 4 UN goals at the centre of the campaign

Our plan and next steps

- Share our results widely, discuss our plans for 2020, and the potential of a presentation at the UN later in 2019
- Focus on a few of the ideas generated, and take them to the next level with some further dialogue, collaboration and analysis

The Fix-the-Planet Team

Our international team was comprised of professionals and sponsors from across the globe

Management

Magnus Penker

Gerry Purcell

Ideation Team

AJ Kennedy

Alain Meloche

Wayne Savory

Susan Wright

Support Team

Johannes Jarl

Peter Junermark

Sofie Lindblom

Adnan Talic

Sasha Viasasha

Sponsors

ABOUT INNOVATION360

Thought Leadership
Five-volume book series
Sit on the 56000 ISO Committee for Innovation Management

Global Reach
Headquartered in Stockholm, Executive Offices in New York City along with offices in Chicago and Toronto
Over 200 Licensed Practitioners in 30 Countries

The Brief

Innovation360 is the leading innovation management company in the world.

Innovation360 has accumulated 100 years of current thinking and research within innovation management and synthesized the findings into a distinctive methodology. This provides a foundation, second to none, to assess and cultivate the innovation capability and culture of the world's leading organizations. Our work includes transformational work in organizations all over the world, ranging from unicorns to Global 100 companies and Governmental agencies. We are uniquely equipped to make a measurable, sustainable impact on your business and its future success.

FIX THE PLANET

PROTECT OUR SPECIES

INNOVATI°N 360

For more information, please contact:

Gerry Purcell
Managing Director, Innovation360 Canada
TELE: +1 416-200-2338
EMAIL: gerry.purcell@innovation360group.com