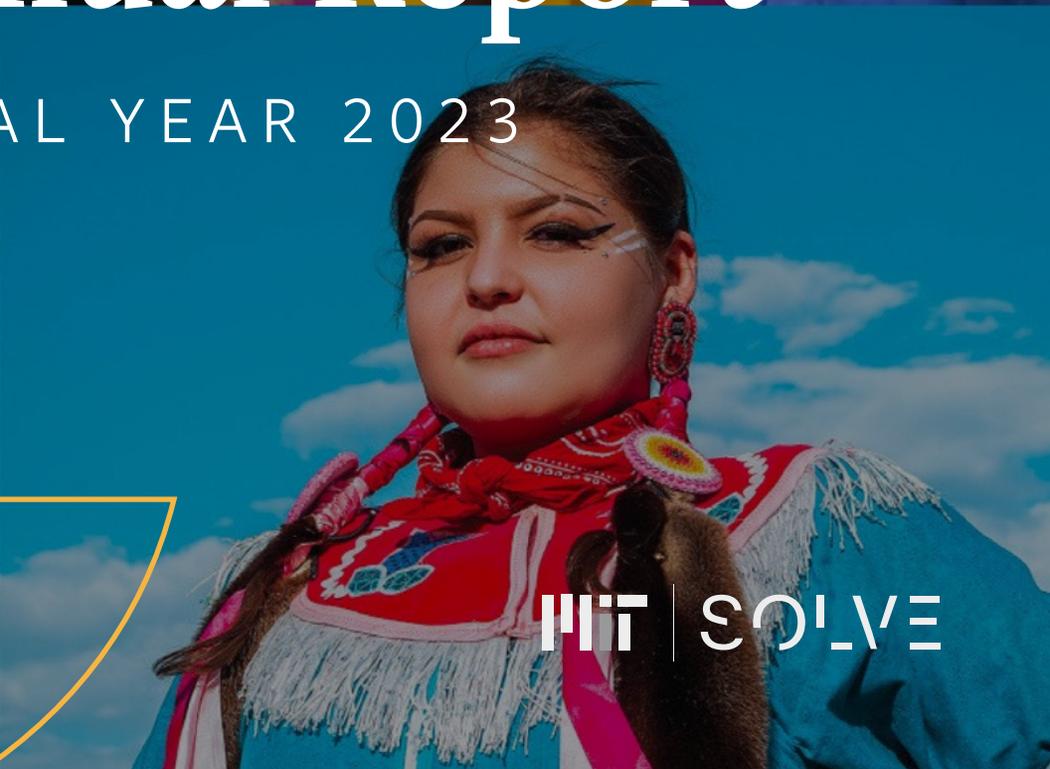




MIT Solve Annual Report

FISCAL YEAR 2023



MIT | SOLVE

A Letter from MIT Solve's Executive Director

Dear Solve community,

As we share this annual report—my first as executive director of Solve—I'm filled with a profound sense of gratitude and optimism. Gratitude for the unwavering dedication of our Solvers, supporters, staff, and the wider MIT community. And optimism for the future we're shaping together—one where technology and innovation are tools for inclusivity and progress.

Reflecting on fiscal year 2023 renews our commitment to our mission.

- **Global Footprint:** We curate an exceptional and diverse pipeline of tech-based solutions to global challenges. They are headquartered all over the world and are proximate to the problems they're solving.
- **Scaling Impact:** Solve has mobilized over \$65 million in funding and services to innovators. This concrete backing makes Solve a pivotal point for our innovators.
- **Innovative Community:** It takes a collective of like-minded individuals and organizations to create real change. We are proud of the community of hundreds of global industry leaders, investors, and philanthropists committed to driving funding more equitably, openly and transparently.

While numbers give scale, the stories bring our mission to life. As you delve into this report, I hope you find inspiration. To me, these stories are a daily reminder of the potential waiting to be unlocked.

I look ahead to 2024 with excitement, and with urgency. Our incoming 2023 Solver Class is working on:

- Building resilience in health systems despite destabilizing events
- Adapting to more extreme weather and creating low-carbon housing for all
- Taking civic action to improve communities and the world

- Providing the financially excluded with the tools they need to withstand financial shocks and build wealth
- Meeting the social, environmental, and economic goals of Indigenous communities in the US and Canada.

The pressing link across all our 2023 Global Challenges is the dire need to address the effects of climate change. The world ahead is one in which scaling our innovators' impact is even more urgent. This urgency is not abstract; it is immediate and critical. The actions we take today will echo into the future. Those of us with resources have the onus to effectively champion those who are most proximate to the challenges at hand, and we at Solve stand ready to facilitate these connections.

Every achievement we've celebrated is a testament to the power of collective action. We invite you to:

- **Join the movement:** Engage with us at our events, become a mentor to our changemakers, and enrich our community with your invaluable connections.
- **Catalyze change:** Support our innovators in a way that resonates with you — be it through prizes, Solve Innovation Future, or your own custom challenge on our platform.

The next phase of our journey fills me with excitement and a heightened appreciation for this community of action. Together, we are solving the world's most pressing challenges, and in doing so, redefining the future.

Thank you for solving with us!



Hala Hanna

Executive Director, MIT Solve

Driving Innovation to Solve World Challenges

Solve finds incredible tech-based social innovators all around the world through open innovation challenges. Solve then brings together MIT's ecosystem and a community of supporters to fund and scale these innovators to help them drive lasting, transformational impact.

SINCE 2016

76
open innovation challenges

18,100+
applications from nearly every country

\$65+ million
in funding and services to innovators



Our Innovators

268 Solvers & Fellows

62% women-led Headquartered in **56** Countries

Including **36** Indigenous Communities Fellows representing **22** American Indian tribes

60% for-profit/hybrid **50%** prototype/pilot
36% nonprofit **50%** growth/scale

170+ million lives reached across the globe

39+ million children

reached with educational content

18+ million patients

receiving healthcare services

37+ million people

benefitting from air quality improvement, water treatment, malaria prevention

420,000+ people

reached with digital inclusion solutions



Meet the 2022 Solver Class

40
Solver
Teams

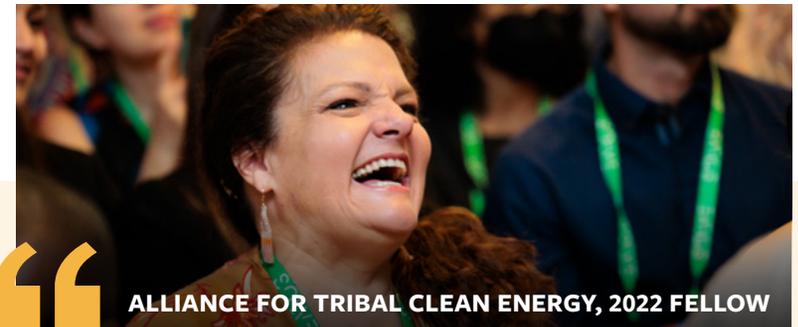
70% women-led

Headquartered in 20 countries including 9 American Indian tribes

\$2+ million in prize funding awarded

Innovator Support

When innovators join our MIT-backed network, they get access to funding, resources, and connections to accelerate their work, validate their impact and business model, and scale their solution. This includes prize funding, direct investment support through Solve Innovation Future, and nine months of personalized support from Solve staff and a cross-sector social impact community.



ALLIANCE FOR TRIBAL CLEAN ENERGY, 2022 FELLOW

The amazing community of fellow Solvers, especially the Indigenous Communities Fellows and MIT Solve staff who have become like family, has truly been transformational for me, personally, as a founder and leader. These are treasured relationships that will last a lifetime and have also benefited my entire team and the people we serve.”

2022 Solver Survey Results

To continuously improve our program, we track Solvers’ progress for five years through an extensive monitoring and evaluation process

82% say participating in Solve has been ‘Catalytic’ or ‘Transformational’ for their solution¹

77% say they have been able to reach more customers/beneficiaries because of Solve support



Custom Challenges

Solve uses our proven methodology, network of innovators, and award-winning platform to design custom innovation challenges based on an organization’s social impact goals.

38 innovators selected to receive prize funding across four challenges in FY23

\$1.6+ million disbursed in funding and services for selected innovators



¹Definitions: “Transformational: We would not be where we are today were it not for Solve - our solution is materially in a different place, Solve changed the way we think about our solution, we wouldn’t have received the same support (money, in-kind resources, access to networks) etc.” “Catalytic: Thanks to Solve, we have achieved our goals much faster than we would have had we not participated as a Solver.”



Our Areas of Impact



Climate

8 Solver teams solving for equitable tech solutions for the climate crisis, for both mitigation and adaptation

RESULTS

A net reduction of **103,000+ metric tons** in CO₂ emissions

2 custom challenges solving for the environmental impact of rare diseases and building support for agritech innovators in Sub-Saharan Africa



» Photo credit: Housing NOW

Housing NOW, a 2022 Solver team that creates prefabricated, modular, and low-cost housing in Myanmar, received \$25,000 from Good Energies Foundation. This funding helped build an orphanage, move a family from informal housing to their first house, and set up a permanent workshop for Housing NOW in Myanmar. Thanks to both the funding and contacts from Easy Housing, another 2022 Solver that offers circular and biobased housing in the Global South, they are also expanding their work to Madagascar.

Economic Prosperity

8 Solver teams solving for financial and economic opportunities for all, through access to capital, good jobs, and key infrastructure

RESULTS

12,800+
people employed under fair working conditions and above minimum wage

1 custom challenge encouraging gender equity in STEM education and careers



» Photo credit: Hello World

Prizes funded by our generous supporters are awarded to our Solver teams at Solve Challenge Finals, throughout their nine-month support program with Solve, and beyond. **Hello World**, a 2021 Solver team that builds solar-powered internet hubs for remote communities, has received over \$190,000 from Solve supporter, Andan Foundation, since selection.

“We continue to partner with the Andan Foundation, which shares many of our goals of refugee justice and dignity. We are building Hello Hubs with the Andan Foundation in refugee settlements in northern Uganda.”

— **HELLO WORLD, 2021 SOLVER**

Health

8 Solver teams solving for equitable health outcomes and access to quality care through community-driven tech innovation

RESULTS

39,000+ health workers developed, trained, or retained in under-resourced communities

24,100+ consultations with a licenced health provider

2 custom challenges solving for the quality of life of people who have been diagnosed with a rare disease, and for primary health care performance measurement in low- and middle-income countries



» Photo credit: M'Care

Solve connects our innovators with MIT's ecosystem for additional support in scaling their impact. **M'Care**, a 2021 Solver team was selected for their AI-powered app that detects, diagnoses, treats, and limits the spread of diseases and outbreaks in low resource settings. This past year, M'Care collaborated with MIT students in the "Machine Learning for Healthcare" course. Students analyzed and contextualized data to improve nutrient delivery to children across Nigeria, specifically micronutrient powder, vitamin A, and zinc to children below the age of five. The M'Care team presented the findings in May 2023 to the National Ministry of Health in Nigeria. As a result, policymakers are revamping the dosing scheme for essential micronutrient administration for children to prevent malnutrition.

Learning

8 Solver teams solving for learning opportunities and better outcomes for all learners, from early childhood on

RESULTS

209,000+ people with improved learning growth/proficiency gains

1,400+ schools with adapted infrastructure for students with disabilities

3 custom challenges focused on growing the evidence-base for education solutions and supporting youth-led innovation



» Photo credit: Yiya AirSciences

Solve works with organizations across different sectors to design innovation challenges tailored to meet social impact objectives. In 2021, we worked with Jacobs Foundation for a Solveathon aimed at increasing equitable learning opportunities for children. Solver teams can apply to custom challenges, which led 2020 Solver, **Yiya AirScience**, to win awards totaling over \$240,000. In 2022, Jacobs Foundation backed a collaboration between Yiya AirScience, focused on access to education for rural African girls, and Carnegie Mellon University researchers. The evaluation found that Yiya AirScience learners showed increased interest in STEM education and career, and increased persistence when problem-solving.

US Equity

8 **Fellows** addressing how Native innovators in the US can build upon traditional knowledge and technology to meet the social, environmental, and economic goals of their communities

6 **innovators** selected from the 2022 Solver Class as part of the annual cohort of the Black and Brown Innovators in the US Program

2 **custom challenges** solving for small business owners in the United States, and women and BIPOC-owned businesses



» Photo credit: ATCE

Solve’s Indigenous Communities Fellowship annually selects Native innovators using traditional knowledge and technology to drive positive impact in Indigenous communities anywhere in the United States and Canada, including territories. 2022 Fellow, **Alliance for Tribal Clean Energy (ATCE)**, has championed ensuring federal infrastructure and coal transition funding is adequately allocated to tribal communities across the US, and hosted a first-ever Tribal Energy Equity Summit, convening the Federal Energy Regulatory Commission and other regulators with tribal leaders in May 2023. ATCE also partners with 26 tribes across 13 states to support their clean energy ambitions. Solve has facilitated \$55,000 in funding for ACTE, including a \$25,000 prize with General Motors. This funding directly supports their work equipping tribal members with access to renewable energy and promoting tribal self-determination through clean energy.

Youth Innovation

We believe that young people hold the empathy, power, and ingenuity to solve world problems. Through a youth innovation focus, we work with organizations that share our desire to inspire and support the next generation of problem-solvers.

4,300+ youth reached

831 solutions from **90** countries submitted to 2022 youth innovation challenge

10 youth innovators selected

\$180,000 prize funding awarded

11 workshops run with youth across the globe



Karpolax, a solution focused on extending the shelf life of fruit and vegetables using green nanotechnology, serves 715 market vendors; their incomes have improved by an average of \$112 a month as a result of the solution

The City of Binghamton (NY) has deployed **KLAW**'s cement replacement technology, decreasing the carbon impact of their concrete by 20%

Vinsighte's AI technology for the visually impaired is serving 8,000 people with visual impairments across ten schools and two disability-focused organizations in Nigeria

Cropfix by eAgro, a chatbot platform that assists in identifying plant damage, now has 8,500 users

Innovative Financing

Solve Innovation Future is a philanthropic venture fund. Organized as a donor advised fund (DAF), Solve Innovation Future directs seed and Series A investments to Solver teams with cutting-edge early-stage tech solutions.

4x impact on invested capital for every \$1 that we have invested, we have unlocked \$4 toward our investees

38+ million lives reached across our **16 portfolio companies**



» Photo credit: Ilara Health

INVESTEE RESULTS

1.3 million

lives with improved health outcomes

86,000

individuals with improved learning growth

155,000 kg

net reduction in CO₂ emission

110,000 kg of waste diverted from landfills

1.4 billion gallons of water preserved

This year, five Solver teams, of which three are health-focused, received catalytic investments through Solve Innovation Future. Our recent investee and 2020 Solver, **Ilara Health**, is a Kenya-based startup making common diagnostics more affordable and accessible through portable, telemedicine-enabled ultrasound devices. This investment enabled their team to deploy 147 Butterfly ultrasound devices across Kenya and South Africa.

Read more in the [Solve Innovation Future Annual Report](#)

EVENTS

Convening an Incredible Community



Our annual flagship events serve as a touchstone for our community, bringing hundreds of like-minded individuals to the same problem-solving table.



Solve Challenge Finals 2022

NEW YORK CITY, NY



This event has the potential to change lives, for the Solver teams, and for all the people impacted by the solutions!”

SOLVE CHALLENGE FINALS ATTENDEE

Solve at MIT 2023

CAMBRIDGE, MA



We need strong partnerships and people who bring unique insights, new expertise, and first-hand experience of the different ways that global challenges can play out [...], and this is exactly where Solve comes in.”

MIT PRESIDENT, SALLY KORNBLOTH



US Summit 2023

TULSA, OK



Having the opportunity to connect with others who are truly making a difference for indigenous people and people of color. I left feeling like anything was possible.”

US SUMMIT ATTENDEE





Our first docuseries, “**The Big Idea**,” features three Solver teams and their stories as they explore groundbreaking solutions to some of the world’s most pressing challenges. These brilliant and bold innovators are united by their desire to use technology, science, and engineering to create radical, systemic change. From a solution to keep vaccine temperatures stable in remote places, to antiracist technology aimed at reducing Black and Brown maternal mortality rates, to hands-on robot-building kits for Indigenous youth, these ideas are meant to shake up the status quo and ultimately, change the world.

View the films at solve.mit.edu/thebigidea.



“The Big Idea” was produced by Redglass Pictures and made possible by the generous support of HP.



In the News

Solve's story was shared across US and international media over **165 times** this fiscal year

The Boston Globe

How to Empower Young People to Help Solve the World's Problems

“ Through innovation challenges, we at MIT Solve have witnessed firsthand the groundbreaking tech solutions that emerge when young innovators receive funding like unrestricted grants, and support like connections to potential corporate partners and mentor figures... Engaging young people is not just a moral imperative, it is also a strategic one.”

— **HALA HANNA**
EXECUTIVE DIRECTOR, SOLVE

Inside Philanthropy

The Answer to Smarter Philanthropy Can Be Found in a DAF Intermediary

“ Many early-stage innovators are seeking access to capital, but the market is notoriously opaque. As such, at MIT Solve, a marketplace for impact and innovation, the value of intermediaries has become increasingly evident. Progressively, we're seeing early-stage innovators seek out impact-focused investors so that they can intentionally build viable business models with ESG considerations ingrained in their governance structures.”

— **CASEY VAN DER STRICHT**
PRINCIPAL, SOLVE INNOVATION FUTURE

Thank You

Thanks to the generous supporters within our community, we're able to make tangible progress toward solving global challenges. We're grateful to everyone who has supported us in our journey and invite others to join us in our mission.



SOLVE SUPPORTERS

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 Heifer International
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 Alfaisal University
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 Yum! Brands

Additional thank you to Solve's Steering Committee and MIT for their ongoing guidance and support.

Come solve with us!

Contact us at partnerships@solve.mit.edu or visit solve.mit.edu/support to learn more.

"We sought to use our resources to help solve some of the world's biggest social challenges—and that's where MIT Solve comes in. 2022 marked the inaugural partnership between Lp x MIT Solve's Global Challenge solutions initiative, yielding media coverage, internal employee participation and contribution of a brand-funded prize. As a brand that is founded out of MIT, this is a full circle collaboration." — LIVING PROOF



IT SOLVE

