

January-December 2023

Engineers Without Borders International Annual Report



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Image: Engineers Without Borders USA



A letter from our Executive Director

Katie Cresswell-Maynard

We're on a mission to mobilise a global network of engineers for good.

The Engineers Without Borders movement was established some 40 years ago. Back then, dedicating engineering skills and expertise to improve human lives the world over wasn't a new idea, but it needed a revival in the late 20th century when engineers' focus was increasingly devoted to achieving technological feats; faster, bigger, higher, cheaper were replacing the sense of engineering as a key component in the social fabric of our societies and how we impact the environment and the planet through our use of its resources.

Fast forward to today, and there is the **greatest urgency we have ever known for engineering skills** and expertise to be directed towards addressing the climate crisis and building a safe future for everyone, and in particular to support those that are most vulnerable in society.

To date, the global Engineers Without Borders movement has been a network of national organisations who share a name and take individual action. Engineers Without Borders International is now proud to be facilitating a transformation of this network into a global collective capable of rallying globally meaningful impact and influence.

In 2023 we initiated this effort with a comprehensive insight and reflection piece, signing an MOU with the World Federation of Engineering Organisations (WFEO), and building internal links between national organisations to create the foundations for a collective outlook.

We're now looking forward to 2024 where we will be hosting the first global summit since the pandemic and the first where we aim to co-create a collective action plan.



Leave no one behind

The global Engineers Without Borders movement is a community of engineers across 40 countries, who believe we can do more to address global inequity and injustice.

Our mission at Engineers Without Borders International is to facilitate networking, collaboration and exchange of information among our Member Associations. As such, this will aid in the development of the Member Associations' capacity to assist developing communities through education, capacity building and implementation of sustainable engineering programmes.

With over 40 years of experience, the work of the Engineers Without Borders movement today focuses on addressing the most pressing challenges and accelerating progress for a sustainable and equitable future through:



Delivering critical infrastructure to communities in need



Supporting people in crisis

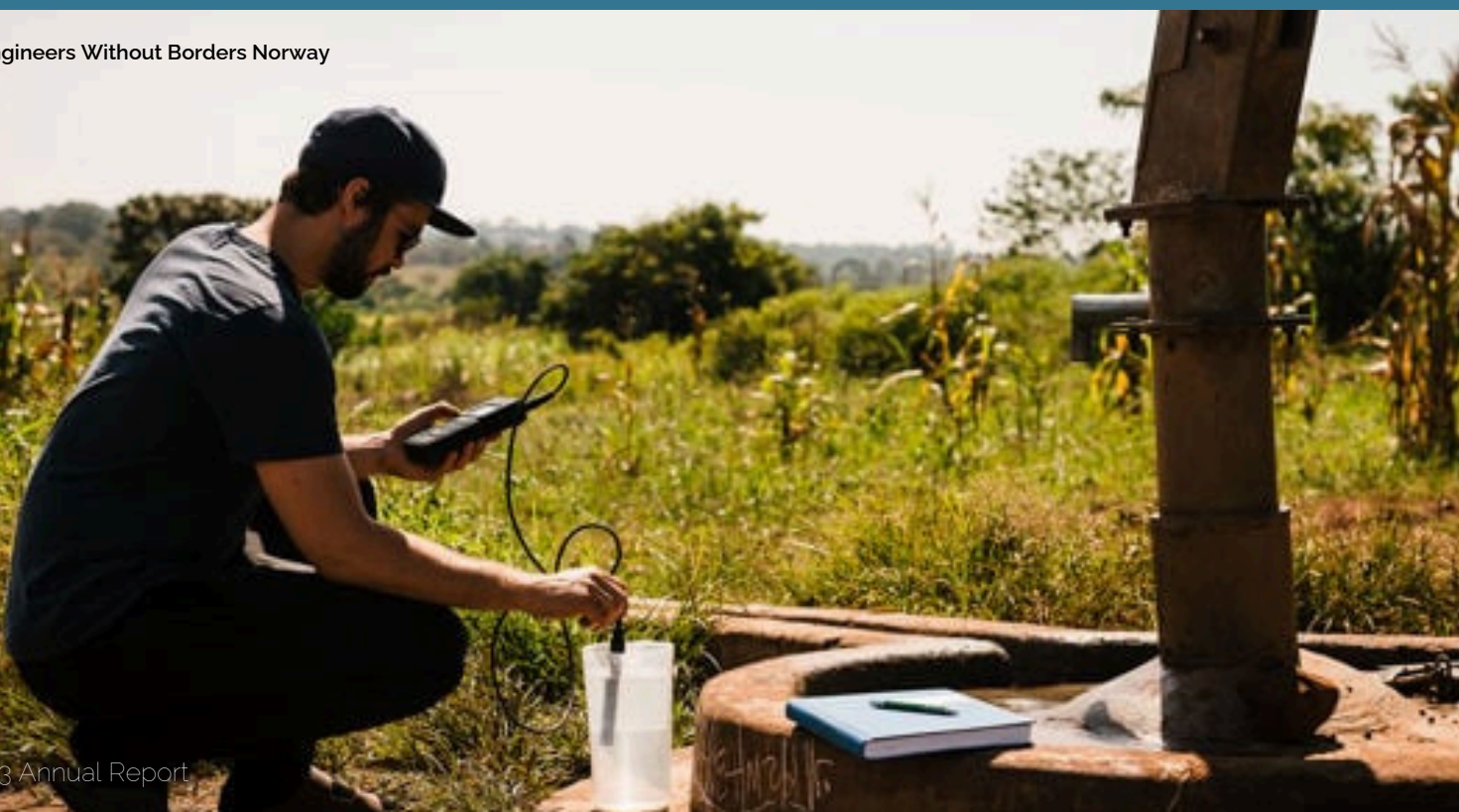


Inspiring, building and shaping a future fit engineering community



Nurturing future fit engineering solutions

Image: Engineers Without Borders Norway



Our global presence

In 2023, Engineers Without Borders International worked tirelessly to rebuild connections across its global network, with the aim of strengthening the voice and mission of the movement. While the 40 registered members of Engineers Without Borders International operate independently, they share values that ensure all people can access a just and equitable life within the means of our planet. Below, you can find a map of where Engineers Without Borders currently has a presence across the world.



Outside of the 40 Member Associations highlighted above, many other organisations use the Engineers Without Borders name globally. Here at Engineers Without Borders International, we hope to nurture these relationships, learn about the work being delivered globally and further inroads to align how national organisations evolve, strengthening the global movement.



Delivering critical infrastructure to communities in need

2.2 billion people do not have access to safely managed drinking water. 3.5 billion people do not have safely managed sanitation services. 940 million people do not have access to electricity. 2.3 billion people do not have access to clean cooking. We are finding new ways to deal with critical infrastructure challenges. Examples of that work include, but are not limited to:

Engineers Without Border Argentina | Survey of the water and sanitation situation in rural areas

Engineers Without Borders Argentina are conducting research of the situation of water and sanitation access in 100 isolated rural areas in South Santiago del Estero. The information will be gathered through an instrument specifically designed to collect data without the need of connectivity

In Argentina, 7 million people do not have access to safe drinking water. This situation is particularly complex in isolated rural areas in regions affected by drought and climate variability. Most of the times, families in Santiago del Estero depend on external water supply through tanker trucks, and they even use unsafe drinking water which is not suitable for human consumption.

[Learn more](#) —>

Engineers Without Borders Switzerland | Drinking water supply in Yrdyk, Kyrgyzstan

In collaboration with the Swiss engineering firm Holinger AG, Engineers Without Borders Switzerland is supporting Yrdyk, a village of about 3'000 inhabitants located in the Eastern part of Kyrgyzstan. The goal of this project is to support this resilient and enterprising community in the upcoming years and develop a sustainable and safe drinking water supply system with them. In this project a suitable method is being developed for water treatment meaning that once the simple, low-maintenance method for obtaining drinking water is working, it can be replicated by the locals in other villages.

[Learn more](#) —>

Engineers Without Borders Netherlands | Waste management in Ghana

Engineers Without Borders-Netherlands (EWB-NL) has joined forces with Trash Smart, a local waste management organisation in Kumasi, Ghana, to transform plastic waste into valuable construction materials. This innovative project aims to address the pressing issue of plastic pollution in Ghana, while simultaneously providing much-needed infrastructure for local communities.

The project focuses on scaling up Trash Smart's existing waste management business by integrating mechanical recycling processes into their operations. EWB-NL, in collaboration with Temporary Works Design and The Great Plastic Bake Off, is developing a comprehensive solution, encompassing a sustainable business model, software for optimizing the value chain, construction efficiency enhancements, recycling technology for brick production, and architectural and structural designs.

[Learn more](#) —→

Engineers Without Borders USA | Purposeful partnerships

Engineers Without Borders USA (EWB-USA) harnesses the power of a robust network of student and professional volunteers to deliver transformative infrastructure projects to under-resourced communities in both the United States and around the world. Their efforts are deeply rooted in a collaborative approach, where they engage in long-term, intentional partnerships with local communities—a model they call "Purposeful Partnership." These purposeful partnerships, nurtured by our dedicated volunteers, not only create meaningful change on the ground but also provide invaluable experiential learning opportunities for students, fostering the next generation of leaders in STEM-related fields and community development.

[Learn more](#) —→



Supporting people in crisis

The climate crisis, global health pandemics and human conflict all put human lives at risk. We are building resilience and putting people and the planet first. Examples of that work include, but are not limited to:

Engineers Without Borders Norway | Waste for Warmth

Engineers Without Borders Norway has been working in partnership with Field Ready Turkiye and The Polyfloss Factory on a humanitarian innovation project aimed at transforming the way displaced communities cope with harsh weather conditions. The Waste for Warmth project has targeted displaced people in Syria, transforming more than 30 tons of plastic waste into various insulation products as protection against cold winters and to help regulate extremely warm weather conditions. The innovation project has opened up several opportunities for further exploration of using this field-friendly machine in humanitarian contexts. In collaboration with Green Decision and Research Lab and World Vision the technology has been used to insulate school roofs in Kailali, Nepal, and several other NGOs have expressed their interest.

[Learn more](#) —>





Inspiring, building and shaping a future fit engineering community

We are driving change in the broader engineering community to ensure that all of engineering is focused on creating a positive impact for all people, now and in the future. One example of that intention is through the [open letter](#) we collectively penned outlining the change needed in how engineers are educated and developed. Further examples of that work include, but are not limited to:

[Engineers Without Borders UK](#) | Delivering the Engineering for People Design Challenge which takes a project learning approach to support students in understanding their impact as engineers on both people and the planet.

The challenge, delivered during a pivotal moment in an undergraduate student's career, encourages individuals to broaden their awareness of the social, environmental and economic implications of their engineering solutions. Since 2011, the Design Challenge has been delivered in Cameroon, South Africa, the UK and Ireland and the USA to over 70,000 students.

Each year, Engineers Without Borders UK works with a programme partner to create a design brief based on real-world challenges that people in their community are facing, which are framed around the UN Sustainable Development Goals. [This year's programme partner is the Govan Community Project](#), a community-based organisation working in south-west Glasgow to achieve social justice in the Greater Govan area by building a strong community based on equality, mutual respect, support, and integration.

In 2023 over 8,500 participants from across the UK and Ireland took on the challenge. Their solutions were reviewed by over 200 volunteer reviewers, through which the top 36 teams were selected and invited to join us for the Grand Finals where they pitched their ideas to [this year's judges](#). This process whittled the number of teams down to six, who pitched to over 150 participants in attendance at the event, as well as a judging panel comprised of industry leaders and representatives from our community partner.

[Learn more](#) —→

Engineers Without Borders South Africa | Delivering Annual Leadership Retreats that bring the executive leaders across their student network together for multi-day workshops

Engineers Without Borders South Africa's Just Infrastructure Lab is a volunteer-led portfolio that follows a project-centric and collaborative approach to support community-based nonprofits by harnessing its professional and student members to implement solar, water and other infrastructure solutions. Current active projects include supporting two children's homes with their energy and water challenges.

EWB-SA supports students chapters across South Africa through Human-Centred Design workshops that guide how they implement projects, as well as hosting an annual Student Leadership Retreat, revived post-COVID to continue catalyzing the development of resilient, resourceful & results driven young leaders. We have held 8 Annual Leadership Retreats where students reflect on all their projects, lessons & failures amongst their peers and plan for the upcoming academic year, reinforcing their passion for social development, impact and personal development.

[Learn more](#) →





Nurturing future fit engineering solutions

Engineers have played a significant role in creating the global challenges humanity faces today. We are supporting the development of new engineering solutions that will provide a more just future for everyone and our planet. Examples of that work include, but are not limited to:

Engineers Without Borders Australia | Working in partnership with Cambodian NGO, Banteay Srei, to develop assistive technology to support women farmers to access livelihoods through agriculture.

In Cambodia, nearly 80% of people live rurally and many operate small farms to feed their families and generate income. These agricultural holdings are often run, and worked, by women who face unique challenges in the field.

Engineers Without Borders Australia's team of engineers are working with Cambodian women farmers to change that through AgriTools, a new project by EWB Australia. When AgriTools was launched in the Siem Reap province in 2023, the team had a specific mission: to design agricultural tools, in collaboration with the women who use them, to suit their needs, make their work easier and increase their independence. A new tool named the Handi-Plough tool, born from months of community consultation and prototype testing, is now helping facilitate independent, safer and faster soil preparation among women farmers in Siem Reap.

[Learn more](#) —→



Engineers Without Borders Canada I Drives systemic change through community-driven projects, by collaborating with local leaders, service providers, and organizations around the world, and by leveraging the power of engineering to create a truly sustainable future for marginalized populations.

Engineers Without Borders Canada's Engineering Better Tomorrows (EBT) is a solar energy project that embodies this vision by addressing energy poverty in Zambia and Malawi to help bridge energy access gaps in schools and health centres. 75% of the world still living without electricity are in Africa. Access to electricity plays a critical role in reducing inequalities and promoting long-term human development, especially in the areas of healthcare and education.

In Zambia and Malawi, roughly 25% of rural schools are electrified compared to 75-80% in urban areas. On the healthcare front, 50,000+ rural healthcare facilities within SSA lack electricity, and 70% of medical equipment fails on a regular basis, often due to unreliable power. Through EBT, EWB Canada is working with EWB Zambia to install essential reliable solar energy solutions in the region to meet the critical needs of rural health facilities and schools, and ensuring that local partners, including government ministries, are equipped to provide ongoing technical support.

Ensuring a steady, cost-effective electricity supply through a project that ensures collaboration, localisation and sustainable governance is core to the planning, will mean long-term success and scalability, greater social equity, and community empowerment. Specifically, the project enhances local capacities through training, job creation, and access to technology, fostering economic resilience. It promotes the benefits of renewable energy that extend beyond immediate electricity needs, contributing to long-term development and improved quality of life for underserved communities.

[Learn more](#) →



Image: Engineers Without Borders Canada

Engineers Without Borders East Africa | World Bank to enhance climate resilience

In 2023, Engineers Without Borders East Africa (EWB-EA) had an opportunity to implement a project funded by the World Bank to enhance climate resilience in 22 Ugandan municipalities and 11 refugee-hosting districts. The USMID-AF project initiative focused on rainwater harvesting to combat flooding and drought, aligning with Uganda's national priorities and the SDGs. The Key outcomes include updating building codes, training 218 officials in climate resilience, and integrating these efforts into EWB-EA's Nexus Approach for sustainable development.

[Learn more](#) —>

Engineers Without Borders Israel | Food security

Engineers Without Borders Israel has collaborated with Keriko Secondary School and Kenyan research institutes to implement a food and water security project in Nakuru County. With our Kenyan and Israeli partners, we have begun food security research and invested in appropriate technology to meet the needs of the community and support locally-led adoption. We aim to continue research and expand the project to other areas facing similar challenges.

[Learn more](#) —>



Image: Engineers Without Borders Israel

2023 Financial Reports

EWB International works with national EWB organisations to deliver impact on the UN's Sustainable Development Goals. Our work would not be possible without the generous support of our donors, supporters, partners and volunteers involved in delivering our work. Thank you.

Below are the financial reports of Engineers Without Borders International, it does not include the financials of the Member Associations featured in this report.

Statement of Activities:

	2023	2022
REVENUE		
Membership dues	\$-	\$-
Donations	\$192,242	\$204,330
Investment income	0	\$79
Total revenue	\$192,242	\$204,409
EXPENSES		
Grants	\$45,125	\$54,340
Operations	\$145,656	\$66,902
Total expenses	\$190,781	\$121,242
CHANGE IN NET ASSETS		
Increase (decrease)	\$1,461	\$83,167
Net assets, year start	\$158,573	\$75,406
Net assets, year end	\$160,034	\$158,573

Financial Position (31 December 2023):

	2023	2022
ASSETS		
Cash	\$139,546	\$211,975
Other	\$75,000	\$-
Total	\$214,546	\$124,808
LIABILITIES AND NET ASSETS		
LIABILITIES		
Accounts payable and accrued expenses	\$16,512	\$49,402
Grants payable	\$38,000	\$-
Other liabilities	\$-	\$-
Total liabilities	\$54,512	\$49,402
NET ASSETS		
Without donor restrictions	\$160,034	\$75,406
With donor restrictions	\$-	\$-
Total net assets	\$160,034	\$75,406
Total liabilities and net assets	\$214,546	\$124,808

Board of Directors

Our directors are a diverse group of talented, passionate people from around the world. We have nine elected positions from across the global Engineers Without Borders movement and two appointed positions.

Boris Martin, President I EWB USA

Boris is a dual Canadian and French citizen. He has worked and volunteered at EWB for almost 20 years, including 3 years in Bobo Dioulasso, Burkina Faso. He currently lives in Denver, USA as the CEO of Engineers Without Borders USA and was previously CEO of EWB Canada.

Sanjiv Indran, President-Elect I EWB Malaysia

An avid traveler, cinephile and life-long Star Wars Geek, Sanjiv Indran is the current President of Engineers without Borders Malaysia. He is a Principal Consultant at a boutique management consulting firm, and co-founded EWB Malaysia in the hopes of inspiring and empowering the next generation to help build a sustainable future.

Clare Haas Claveau I EWB USA

Clare is COO of EWB USA, overseeing program and operation functions. Clare is inspired by the passion and dedication of EWB's volunteers and their global impact with community partners. She has worked in the infrastructure industry for over 25 years, providing a diverse range of management and technical services.

Michal Dolev I EWB Israel

Michal is CEO of EWB Israel. Throughout her career she has directed environmental and sustainable projects, design and architecture, business development, resource mobilization, promoting innovation and engineering projects. Michal holds a master's degree in earth sciences and sustainability from Tel Aviv University Israel.

Robinson Ejilah I EWB Nigeria

As the 13th National Chairman, Nigerian Institution of Mechanical Engineers, he strategically re-positioned the Institution to promote; international collaboration and partnership, diversity and inclusion, research and innovation activities, and mechanical engineering skills training and advocacy programmes.

Nick Estrada I EWB Guatemala

Nick has a PhD in geographic sciences, specialising in natural hazards, along with a master's degree in project formulation and evaluation. He is also an agronomist with more than 20 years of experience working in rural areas, where he is originally from. His academic development and work experience have allowed him to establish alliances with various organisations committed to the development of communities.

Raymond Lopinski I EWB Hong Kong

Raymond has worked for global companies (various industries), travelled to over 60 countries and responsible for operational services in developing and developed countries. This diverse breadth of experience has taught Raymond to articulate and develop strategic visions and deliver operationally in a local context.

Muaamar Mahyoub I EWB Yemen

Muaamur has 10 years of professional experience in humanitarian program operations management in emergency and development settings with international NGOs such as ADRA International, Mercy Corps, and TYF. He is a professional in organisational and operational capacity building, having built the capacity of more than 30 local NGOs. He possesses strategic thinking, adopting innovation, influence, and impact. His communication and analysis skills are effective and support decision-making.

Subhash Rastogi I EWB Malaysia

Dr Subhash Rastogi, has 50 years of experience with world-class business schools, multinational companies, corporate education and global professional bodies. A blend of expertise in business management, project and manufacturing management and digital technologies. Subhash has experience in creating synergies between industry and academia.

Julia Inés Roitman Gil I EWB International

Born and raised in Buenos Aires, Argentina, Julia Inés Roitman Gil is a lawyer specialized in Public International Law and a graduate of the Universidad de Buenos Aires. As a human rights activist, Julia's work has centred on sexual and reproductive rights, youth participation in decision-making and transitional justice.

Delivery team

Katie Cresswell-Maynard | Executive Director

Previously the CEO of Engineers Without Borders UK, Katie has been involved in Engineers Without Borders since 2004. She has worked at global engineering consultancy Arup in the cities and climate change team, and participated in advisory committees shaping future fit engineering skills.

Joachim Schneider | Programmes Director

Joachim is a trained civil engineer and project manager. He is passionate about collaborative problem solving and has been active in various engineering-related NGOs since 2014, both in Germany and in the USA. Concurrent to his role at EWB International, Joachim is a project manager in the German infrastructure construction industry.

Charlotte Trick | External Affairs Consultant

Charlotte specialises in external affairs, collaborating with organisations across the social sector to deliver projects encompassing brand development, communication strategy, digital transformation, event management, and facilitation. Her clients include Mind and Clore Social Leadership.

Volunteers

Piliah Bonareri | Member Support Volunteer

Piliah is a mechanical engineering student in the Jomo Kenyatta University of Agriculture and Technology, Kenya. As the member support volunteer I aim at building good relationships with member associations and creating meaningful connections. During her free time she enjoys reading novels and going on hikes.

Aisling Cashell | Member Support Volunteer

Aisling is a dedicated civil, structural, and environmental engineer. She first became involved with EWB during her undergraduate degree. Currently working in the environmental sector, she aspires to contribute her skills to meaningful projects that drive positive change in sustainable development and climate-resilient design.

Thank you

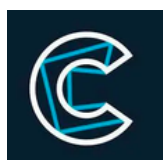
EWB International works with national EWB organisations to deliver impact on the UN's Sustainable Development Goals. Our work would not be possible without the generous support of our donors, supporters, partners and volunteers involved in delivering our work. Thank you.

Our strategic partners:

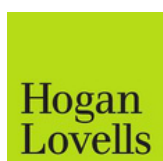


Bentley Systems is a world leading infrastructure engineering software company. Their industry-leading software solutions are used by professionals, and organisations of every size, for the design, construction, and operations of roads and bridges, rail and transit, water and wastewater, public works and utilities, buildings and campuses, mining, and industrial facilities. They have made a five year strategic investment into EWB International to support us in our mission to bring together the global EWB network so that millions more people can benefit from our work.

Our pro bono partners:



Cambridge Consultants is one of the world's leading product development and technology consultancy firms. They provide EWB International with pro bono strategic advice as we bring together our global movement of national EWB organisations.



Hogan Lovells is a global legal firm supporting corporations, financial institutions, and governments with strong values around justice, equality, and opportunity. They provide EWB International with pro bono legal advice to help us promote and protect the global EWB brand.



Publitek is an innovative, global marketing agency for tech companies. They provide EWB International with pro bono PR and communications capacity, supporting us to showcase the work of the global EWB movement and our partners.

Stay Connected

Thank you for supporting the EWB International vision and mission.

You can learn more about the global Engineers Without Borders movement and the efforts of the national organisations at www.ewb-international.org.



Engineers Without Borders International



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@ewb_i

Engineers Without Borders International is a 501(c)(3) nonprofit corporation registered in the US state of Colorado. EIN 59-3821454.

