

Annual Report 2022

15 years of engineering for humanity



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Engineering for humanity

A note from our chairperson



Malabika Ray,
Chairperson
Engineers Without Borders Sweden

It all started 15 years ago. A handful of students and a retired engineer met after a lunch lecture on a patch of grass outside Chalmers University of Technology in Gothenburg to discuss the idea of an engineering organization creating impact - Ingenjörer utan gränser was born.

A lot has happened since. From our first activities in Sweden and an international project in Kenya, our community has grown to hundreds of volunteers mobilizing their engineering expertise through hundreds of projects. This anniversary marks an important milestone for our organization and we are proud to be celebrating 15 years committed to humanitarian engineering!

In many ways, 2022 leads off a new era for us at EWB-SWE. First, as we were able to resume traveling on site and reconnect with our core activities. But equally important

as we engaged in developing our strategy for the next 5 years - defining our ambitions for the future and the impact we aim to create. Engineering is at the heart of the modern world as we know it and is shaping its future for centuries to come. As engineers, we hold a central role in addressing the challenges communities are facing worldwide. Our new strategic plan for 2023-2027 will guide all our work onward to increase our social impact for the communities where we engage. In light of our 15th anniversary, there are exciting times ahead of us at EWB-SWE and on behalf of our Board, I would like to thank all of those who have had an impact on EWB-SWE over the years!

Together with our partners, members and volunteers, we stand ready to serve communities worldwide and advance the Sustainable Development Goals in the next 15 years.

Who we are

Engineers Without Borders Sweden mobilizes engineering expertise to power innovative solutions and solve challenges related to inequality and global development. Through humanitarian engineering, we engage, inspire and unite people to build sustainable communities.





Our national work

Strengthening the Swedish engineering community

Engineering has the ability to shape the development of our society and create positive effects on the environment and people's lives. Through a range of concrete actions, we promote a more diverse and inclusive engineering community prepared to address social and environmental justice.



Engineer to Engineer

Equity in the labor market and society as a whole is fundamental. Yet segments of the population get unequal opportunities to enter the job market in Sweden.



The Reflective Engineer

By reflecting upon the role of engineers, embracing local and global perspectives, and implementing sustainability as a key working principle, engineers enable a future benefiting all people and our planet.



Inspire Youth

Diversity and inclusivity are key to solving the shortage of engineers in Sweden. Motivating youth and inspiring the next generation of engineers is at the frontline to solve societal challenges.



Openhack

Innovation and collaboration are two essential elements to solving humanitarian and societal issues. Through open-source development and hackathons, people collaborate across nations and community borders to generate collective solutions to global challenges.



Our international work

Empowering low-income communities

Engineering has the ability to shape the development of our society and create positive effects on the environment and people's lives. Through a range of concrete actions, we promote a more diverse and inclusive engineering community prepared to address social and environmental justice.



WASH

The consequences of unsafe water, sanitation and hygiene are major in terms of health, development, and learning opportunities. Yet millions of people are denied that right, making it one of the world's most critical issues.



Digitalization

Digital literacy is one of the fundamental building blocks for promoting lifelong learning opportunities worldwide. One of the significant barriers to digital literacy is the lack of necessary digital infrastructure and adequate information support systems.



Construction

Building resilient, safe and durable infrastructures and human settlements is critical for achieving sustainable development. By investing in innovative construction solutions, economic and social opportunities are enabled and poverty is ultimately reduced.



Sustainable Food production

Finding ways to produce and process food in a more sustainable and safe way is crucial to advance living standards and preserve our planet. The current food systems not only fail to end malnourishment but also exhibit substantial ecological impacts.



Energy and waste

Approximately 1.5 billion people in developing countries lack access to electricity, especially in Sub-Saharan Africa. Renewable energy technologies such as solar help expand access to energy for communities resulting in major education, economic, health, environmental and safety outcomes.

Together toward the Global Goals

Addressing the Sustainable Development Goals adopted by the United Nations is at the core of our engagement. Our work toward the Global Goals is reflected in three dimensions:

What we do

Through humanitarian engineering, we directly contribute to the advancement of the following goals:



Why we operate

As our activities answer directly to basic human needs, our selection of projects and partnerships is strongly influenced by our aim to constantly further these goals:



How we operate

We see collaboration as a prerequisite for development. Long-lasting and impactful partnerships are therefore at the heart of our operation.



Our 15 years of EWB-SWE

Engineers are at the forefront of achieving a more sustainable world through innovative, inclusive, eco-friendly and safe engineering practices. For 15 years, we have strived to build a better future through hundreds of projects and initiatives.

2007 *Start*

During a lunch lecture at Chalmers University in Gothenburg engineering students are asked: “why is there a ‘Doctors Without Borders’ but not a similar engineering organization in Sweden?” Two students take this to heart and Ingenjörer utan gränser is born.



2008-2011 *First steps*

EWB-SWE is growing steadily and reaching its first 100 members. Activities start to be arranged in Sweden reflecting on the role of engineers and how to advance engineering expertise in development projects. We engage in different international projects such as solar cooking in Kenya and computer literacy at schools.



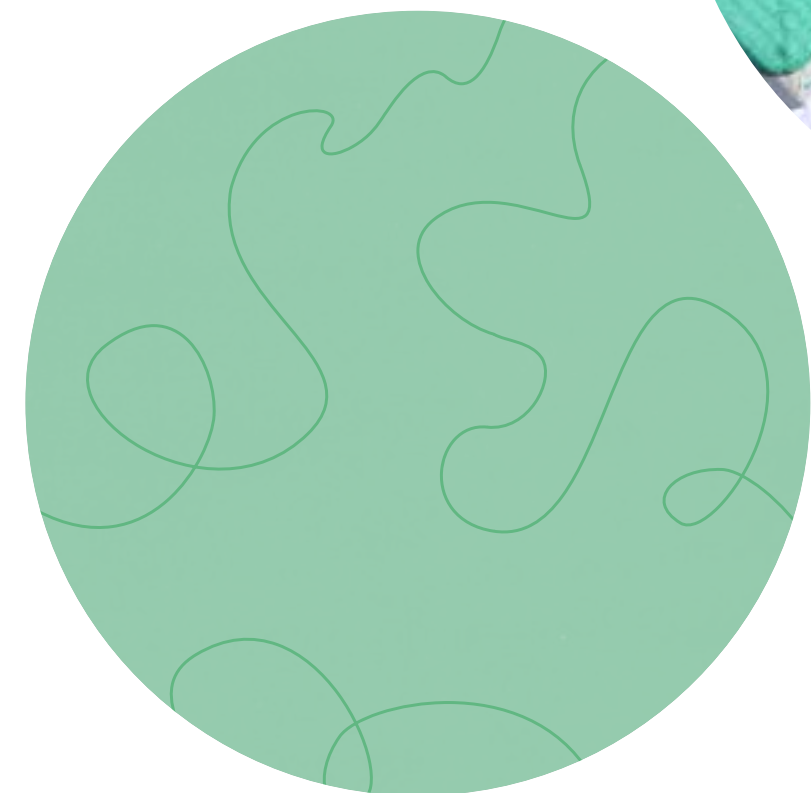
2012-2014 *Growth*

From a local initiative in Gothenburg, we expand to a nationwide network of 10 local groups and grow our portfolio of activities with Inspire Youth to motivate children to seek education within engineering. Our international projects focus on schools and healthcare, engaging our expertise in new areas such as water access, sanitation and energy access.



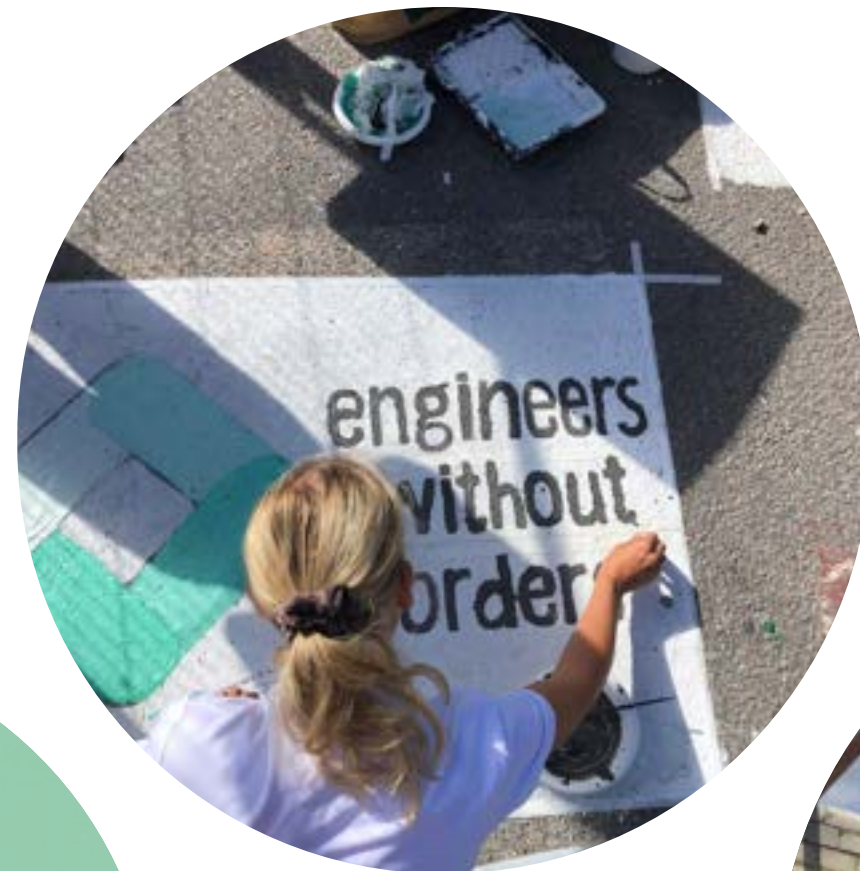
2015-2017 *Expansion*

Beyond our national borders, we implement up to 20 projects on a larger geographical spread and higher complexity. In Sweden, we expand our activities with two initiatives: Engineer to Engineer striving to facilitate the professional integration of newly-arrived engineers in Sweden and openhack solving pressing societal challenges through hackathons.



2018-2019 *Turning point*

Ten years after its start, EWB-SWE has over 1000 members and over a hundred active volunteers in various activities worldwide. We lay down the foundations of the organization we will become by launching our new mission, values, and graphic profile.



2020-2021 *Reshaping*

The pandemic has shattered the world as we know it and we work to maintain all that we do, adapting the ways we make it happen to support communities. Despite these challenging times, we make a difference and to continue building our organization for sustainable and long-term positive impact.



2022 *A new era*

We significantly increase our capacity to take on more extensive and complex projects and to assess and evaluate upcoming initiatives more thoroughly to ensure higher success among and within the projects. We also carry out important work to set our strategic aim and plan for the next five years, launching our new strategy for 2023-2027. Fifteen years since its start, we are stepping into a new era of increased social impact for the communities we engage with.



2022 in numbers

19

local partners

700+

members

30+

active projects
internationally

6

field trips to four countries:
Nepal, Uganda, Tanzania &
Kenya.

8

corporate partners

15+

events organized across
Sweden

10

local groups in Sweden

15

volunteers mobilized in field trips

250+ active volunteers fulfilling our mission



Active in 12 countries





International work

Reconnecting and rebuilding

After two years of pandemic and its lingering impact on our operations, 2022 was an exciting year for our international work. We were finally back in the field to implement long-due projects and also to strengthen our capacity and develop our local partnerships. We also kept developing our internal structures and processes to deliver on commitments and work on even more projects from a distance.



Securing access to clean water, Tanzania.

We implemented the last portion of our project to ensure the supply of clean water to a boarding school for girls and three villages - Ilhanda, Rukople and Chonoyono. The installation of the solar panels now provides a sustainable and safe supply of energy to secure the long-term functioning of the water supply system **servicing about 5,000 people a day.**

[Read more →](#)



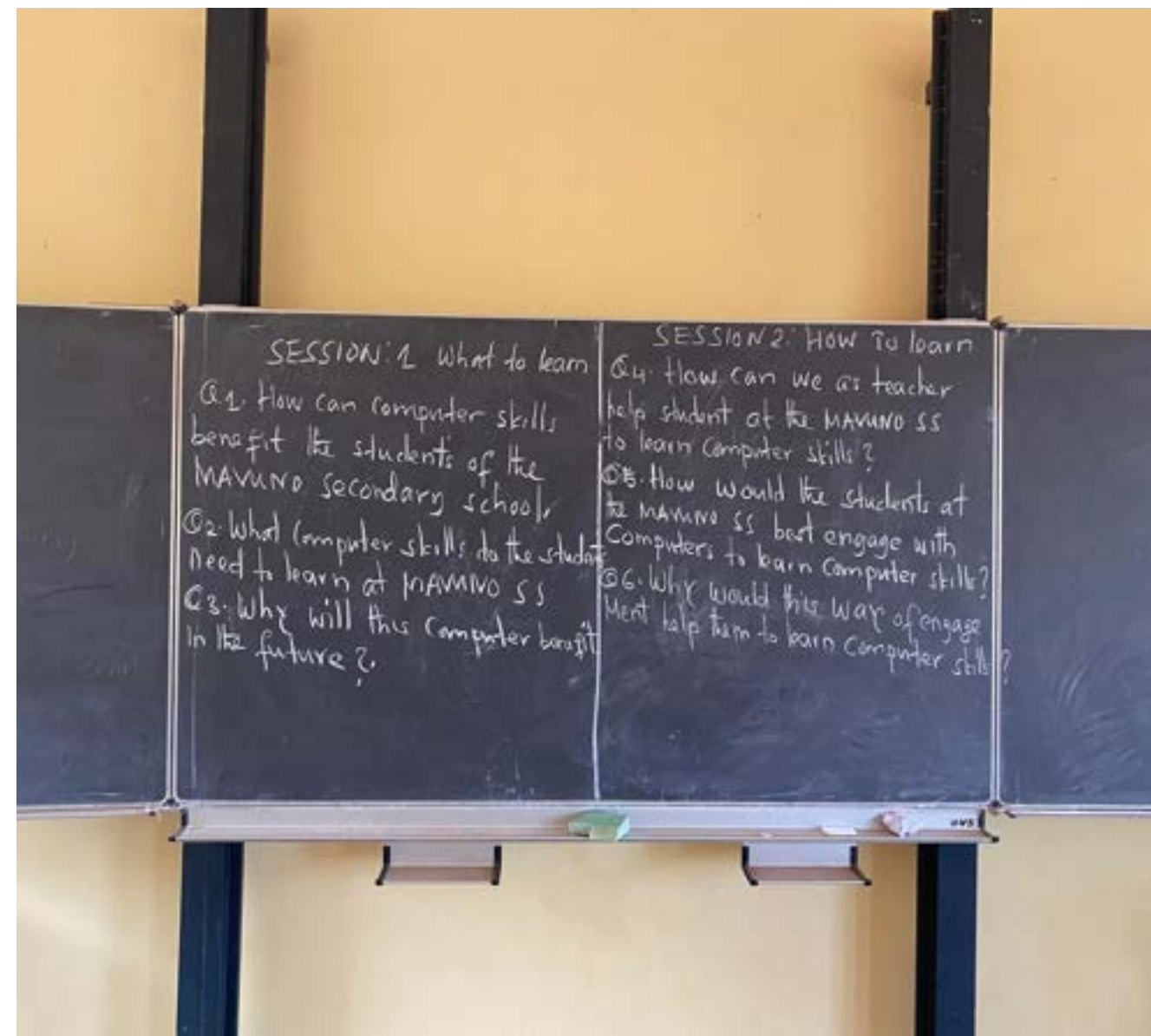
“I feel proud and thankful for the opportunity to positively affect people’s lives by volunteering. A particularly fun and rewarding moment in my journey was during a meeting with our local partner in Rwanda where we are building an ICT-center for the local kids. Meeting them over Zoom was a really fun experience that gave the whole team a boost in purpose and morale to work harder towards a better future for everyone”

Ishak Karakurt
International Projects Coordinator,

Shaping digital futures, Kenya.

After two long years, our Computer for Schools project at Asulma center in Nairobi was successfully completed. Our team of volunteers ensured the setup of the computers and provided training to the teachers and children. Our local partner is now able to conduct digitalization training sessions as part of the school's curriculum while the facilities are available **183 students** and **11 teachers**.

[Read more →](#)



Opening the doors to higher education, Tanzania.

Together with our local partner organization Mavuno Project, we are building the extension of a boarding school to enable more young girls to reach a high-level education. The construction of the three-story building resumed toward the end of the year encompassing the erection of the columns up to the roof. Once completed, **the school expects to benefit 1800 students by 2030.**

[Read more →](#)

Building the way out of poverty, *Nepal.*

Our research and development work to improve housing quality and bricks making machines led to finalizing a new design for the double mould machine used by the local entrepreneurs. This new design of the machine is now gradually being implemented by our local partner Build Up Nepal and creates lower maintenance costs, increased quality and easier use of the machines, all leading to safer buildings in particular in rural areas.

[Read more →](#)



Promoting sustainable cooking solutions, *Kenya.*

For several years, EWB-SWE has engaged in projects aiming to increase solar cooking usage. In collaboration with our local partner *Asulma Center Self Help Group* we promote sustainable cooking solutions, encourage local entrepreneurship through the making, repair and sale of solar cooking devices. In 2022, two entrepreneurs were established in Kitui county, located 160 kms from Nairobi.

[Read more →](#)



Renewable energy for safe healthcare, *Zimbabwe.*

Thanks to a strong collaboration with our local partner FACE, we worked from a distance to secure a stable energy access for a maternity ward. By opting for a renewable supply of energy, this Healthy Hospital project resulted in increased quality healthcare for both mothers and children, especially during surgeries and to run the incubator units for premature babies. It also allowed investing in better healthcare and medicine thanks to the costs saved from using other sources.

“The project was extremely important for us. Before the hospital used to face a lot of challenges, mothers and babies died due to failure to perform some operations because of electricity outages”

Hospital staff



“A skill I have developed this year is my ability to manage projects and communicate my ideas to the team of volunteers. It's been really fun and challenging to take on such responsibility, it's still new and I'm constantly exploring new dimensions of my leadership. I am grateful for the opportunity to be a part of EWB-SWE and develop as a person and project leader”

Hugo Dahlquist,
International Projects Coordinator

On site evaluation in *Tanzania, Uganda* and *Nepal*.

As part of our *Monitoring and Evaluation* work, different teams of volunteers traveled in the field throughout the year to visit previous and ongoing projects, meet the communities, run workshops, discuss the continuation of our partnerships and represent EWB-SWE in different contexts. These field trips led to establishing new collaborations and receiving valuable evaluation reports and recommendations for next steps in the region or a specific competence area. One of our volunteers traveling this summer was Malin Sandström - lead of our Construction Competence group. For two and a half months, she was in the field visiting different projects with the aim to improve and develop our ways of working within construction.



Malin Sandström,
Construction Competence Group





Domestic work

Shaping the engineering community

In Sweden, we translate our values and mission into a series of concrete actions to create a future that drives toward sustainability and national equity. Throughout 2022, we built on our core activities to drive our domestic work while exploring new opportunities to promote a more diverse and inclusive engineering community.



The Reflective Engineer

Through technology and innovation, engineers have the possibility to influence the shaping of tomorrow's society. By reflecting upon and discussing the role of responsible engineering, *The Reflective Engineer* helps foster collective awareness. Besides seminars, workshops, lectures and case evenings, our local chapters organized *Sustainability Week* - a series of events dedicated to sharing insights and initiatives on how companies engineer for a sustainable future. For the third year, the week welcomed **400** participants across four cities.



Inspire Youth

Within *Inspire Youth*, we motivate young people to reach their full potential and seek higher education in engineering and technology.

Approximately **300** youths attended our after-school activities
150+ youths participated in workshops and inspirational lectures.



Engineer to Engineer

Our ambition within *Engineer to Engineer* is to support equal employment opportunities and encourage diversity in the engineering industry by connecting newly arrived engineers in Sweden and the Swedish labor market. Ali Joseph is our most recent inspiring story:

"I secured a work practice as a quality engineer through Jobbsprånget, at the construction company BDX where I am helping to supervise the construction of a new wind turbine. I am so grateful to BDX for giving me this opportunity and for the help and support of Engineer to Engineer. It is great to be part of the Swedish construction industry and do my bit for a sustainable future".





Our daughter organization, *Openhack* is a community where ideas and knowledge are exchanged and built upon in order to solve pressing societal challenges. This is done mainly through virtual and physical hackathons where innovations are sparked to life.



Hack for Södertälje, February.

A 24-hour online hackathon with the aim to contribute to the development towards an inclusive, sustainable and connected Södertälje.

Engineering for humanity, March.

On creating technology-driven solutions addressing the UN SDG's. Organized jointly with EWB entities in Sweden, Norway, Finland and Germany.

Act in space Sweden, November.

Global event with contenders from 40 countries. The objective is to foster entrepreneurship and promote the use of space technologies and space acquired data to change citizen's lives, to boost employment and to protect our planet.

Located across Sweden, our 10 local groups form a network of like minded engineers engaging in some or all of our activities.

Salman Rashad has been involved with EWB-SWE since 2019 in different roles and recently became the group leader of our local group at Uppsala University. Today the group counts 16 active members. Here is Uppsala local group's take on why to join EWB-SWE as a volunteer:

"If you want a commitment where you can both develop as a person and really make a difference in society both nationally and internationally, and of course have fun, then EWB-SWE is the best! Don't worry about it taking up too much time. You will get a lot more energy back than the hours you put in"

Uppsala Group



Social change through local partnership

In 15 years, EWB-SWE has collaborated with more than 40 local partners, each of them offering unique insights into the challenges and opportunities facing residents in their area. Local ownership and engagement are essential for ensuring that our actions are translated into sustainable social impact on people's quality of life.

During 2022 we strengthened our strategic approach and scaled up projects with our two most established local partners - Mavuno Project in Tanzania and Build Up Nepal (BUN). We also welcomed new organizations to expand our scope and impact, and we developed our partner assessment process to be more proactive and strategic when selecting where we engage.





Since the start of our collaboration in 2012, we have conducted 35 projects together with great results in strengthening the local communities.





Since 2016, EWB-SWE has partnered with BUN to help communities in Nepal build safe, affordable homes in response to the devastating 2015 earthquake. As an engineering organization, we support BUN with mechanical and material engineering skills to improve housing quality and bricks making machines.

Together we have so far:

- Reduced the cost of machines by **40%**
- Increased capacity of the manual machine from **300** to **600** bricks per day
- Developed a low-cost compression tester
- Created manuals for quality control
- Redesigned wearable parts of the machine to reduce maintenance

Our focus is now to develop a low-cost mixer to reduce the cost of production while increasing the quality of bricks.



New local partnerships

Tumaini Open school in Tanzania offers pregnant and abandoned mothering students a second chance at education and vocational training. EWB-SWE supports scaling up the expansion of the school with a team of engineers within different competence areas: construction, sustainable food production, and energy.

[Read more →](#)

Tanzanian Renewable energy association (TAREA) brings together actors in the renewable energy sectors to promote the accessibility and use of renewable energy in the country. Within our program *Healthy Hospitals*, we collaborate to strengthen access to reliable and sustainable energy at the *Lutheran Hospital* ensuring quality health care for families.

[Read more →](#)



“Working several years as an engineer, I have developed skills in specific technical areas, but also a lot of skill in creating structures and processes, organizational process optimization and creating clear plans for how to realize strategies and targets set out. In volunteering for EWB-SWE, these have been skills that have come to good use. It has been motivating to think that my volunteering scope will help other volunteers create value within the organization, and to help set EWB-SWE up for successful partnerships in the future.”

Lina Aglen
Partnership Assessment Team



“As I am new in this industry, I came to EWB-SWE to learn, and the past year has certainly brought many lessons. In my role, I am connected to both colleagues within EWB-SWE and partners in the local communities, which is something I cherish a lot since I love being in the coordinator role. It has also been incredibly fun to not only be part of creating new processes but also have the opportunity to pilot them and observe all the benefits and lessons from it and to utilize these when continuing the development work.”

Rawan Yacoub
Partnership Assessment Team

Powerful collaborations

We are proud to collaborate with leading organizations to advance our mission and bring sustainable engineering solutions to the world. Our work is powered by our corporate partners supporting us financially, with expertise, knowledge-sharing and hands-on volunteering.

As our main partner since 2017, Sandvik is one of our longest serving supporters and instrumental in developing our organization as we know it today.

“Sandvik and EWB-SWE have been successful partners for over 5 years and we have extended our partnership and collaboration in early 2023. We are proud to support EWB-SWE and follow the organization’s development and progress. We have experienced ourselves that both the domestic and international work make a difference. Sandvik’s purpose ‘Advancing the world through engineering’ and EWB-SWE’s ‘Engineering for Humanity’ is a great match.”

Kinna Brundin
Global Event and Partnership Manager at Sandvik

Main partner



Gold partners



Bronze partners





“Working as a volunteer for EWB-SWE is a longtime dream that finally came true. I have worked in the building and estate sector my entire professional career and always wanted to engage in a non-profit organization. This opportunity finally presented itself in late 2021 in a recruitment process to join Bengt Dahlgren as Project Manager. Learning that they were partners with EWB-SWE and that it would be possible for me to work as a volunteer within this role was a decisive factor in my decision to join the company. A few months later, I joined EWB-SWE’s international projects team as Project Leader for a new project starting up in Tanzania.”

Besides getting my curiosity satisfied in exploring other cultures and societies as a volunteer, I find it very fulfilling to be part of something bigger and I am proud of contributing with my management and leadership skills. I am very happy that my dream finally came true and that I have found a way of giving back from my privileged life, contributing to a more sustainable and sharing world.”

Karin Carlsson
Project Leader Tumaini Open School

Strategic approach towards communication

To improve our external communications, we have advanced our strategic approach. The aim is to be more effective in our storytelling and to ensure that we reach our target group with EWB-SWE's vision and mission.

Channel	Logo	Followers/Subscribers	Growth	Call to Action
LinkedIn		9380 followers	+ 15%	→
Instagram		1132 followers		→
Facebook		7543 followers		→
Newsletter		3500+ subscribers		→

JOIN OUR COMMUNITY
BECOME A MEMBER

Our campaigners

Commitment, creativity and a passion for humanitarian engineering. Meet some of our campaigners!



Sveriges Ingenjörer, *April.*

In spring 2022, through our collaboration with Sveriges Ingenjörer in “Ingenjörsvalet”, EWB-SWE received a donation of 10 SEK for each vote, leading to a gift of over 120,000 SEK.



Runners without borders, *April.*

A team of three runners - from Finland, USA and Mexico - completed a 2-day ultra trail marathon in Portugal, covering 125 km to fundraise and support building a girl's secondary school in Tanzania.



MOVE4HEALTH, *October.*

Symetry, one of our corporate partners, organized a digital run/walk event for their employees to get moving and fundraise for one of our *Healthy Hospital* projects in Tanzania. The company matched the donations received from participants

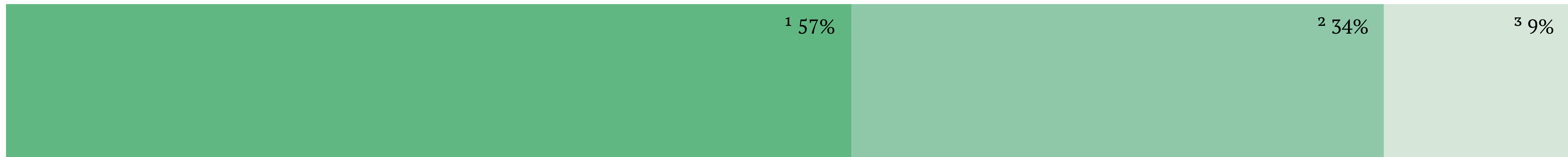
Ready to make a difference by creating your own fundraising campaign?

We're always thankful for anyone wanting to contribute and have ideas for fundraising campaigns!

[Fundraise with us →](#)



How our work is funded



¹ Corporations 57% ² Foundations 34 % ³ Individuals 9 %

Where your giving goes



¹ Activities 82% ² Management & General 18%

Meet our friends and supporters

Our community of friends and supporters offers generous contributions and pro bono services. We are grateful to the following organizations, individual donors and companies for donating to support our work:

Ramböll Foundation

Contiga

Sofigate

Betongindustri

Linköping University

Prevas

Swerim

Evidente

WSP

Eurostep

Sparbanken

SJ

Symetri

Rotary Jönköping

Sandvik

Abetong

Volvoanställdas Utvecklingshjälp

Cementa

Department of Foreign Affairs and Trade - Australian government

Svenska Mässan

Our board

Malabika Ray
Chairperson

Jan Burenius
Vice Chairperson

Marianne Grauers
Vice Chairperson

Bodil Sångberg
Vice Chairperson

Jan Byfors
Head of Finance

Jonny Blomberg
Head of Inspire Youth

Mårten Skogh
Head of The Reflective Engineer

Sunil Subramanian
Head of Engineer to Engineer



“For the past decade, I have had the privilege of being engaged with EWB-SWE in different capacities from developing our fundraising and managing our finances to being chairperson and lately acting Secretary General. I have one of my daughters to thank for introducing me to the organization leading to a rewarding experience. As a senior engineer, I share my time and expertise for EWB-SWE with joy. I am proud of what we have accomplished during the years and the development of the organization and its impact. There is still much more to be done and I look forward to the next 15 years of EWB-SWE.”

Jan Byfors
Head of Finance

There are many ways to join us on our mission toward a sustainable world.



Donate

Help us act where the needs are the greatest. Your support makes a difference and empowers communities with sustainable solutions to improve their standard of living.

[Donate here →](#)



Become a member

We welcome members who share our vision and commitment and wish to show their support for our work by joining our community.

[Sign me up →](#)



Volunteer

Explore our volunteer opportunities and see how you can contribute with your range of skills, experience and knowledge directly to our activities. Everyone is needed, and all are welcome.

[Yes, I want to join →](#)



For companies

Support and commitment from companies are crucial. Join us to have a powerful and lasting impact. Make a donation, become a corporate supporter or get involved in a long-term partnership.

[Explore →](#)



EWB-SWE

We are a volunteer-based organization dedicated to engineer for humanity. We engage our expertise to implement sustainable projects for a better world and the communities we engage with.

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Daniel Fogelsjö.