

**CLOSE
THE
GAP**

BRIDGING
THE DIGITAL
DIVIDE

WorldLoop

CHANGING THE E-WASTE CYCLE

ICT4D and the
SUSTAINABLE
DEVELOPMENT GOALS ALS
2015 Sustainability Report

Bridging the Digital divide

“Close the Gap is an international non-profit organisation trying to bridge the digital divide. We do that by making new technologies available to people, focusing mostly on the region that forms the base of the pyramid in sub-Saharan Africa. We have developed an eco-system with multinational companies that are replacing their IT assets. We take them and make them available as products for our partners in developing countries.”

Olivier Vanden Eynde
Managing Director
Close the Gap & WorldLoop

The core of Close the Gap’s activities revolve around delivering sustainable initiatives for society by harnessing the power of ICT. In practical terms, this means supporting the circular economy, bringing IT to vulnerable communities through local partners, and offering off-grid solutions, as well as actively engaging with the United Nations.

We are excited to present the first sustainability report of Close the Gap and WorldLoop, and share our work towards achieving specific Sustainable Development Goals, as well as our concrete impact.

The Sustainable Development Goals

From September 25th through the 27th 2015, leaders from all over the world gathered in New York, United States, to agree on the Sustainable Development Goals (SDGs) that will replace the Millennium Development Goals (MDGs) and shape the next 15 years of international development. The Goals were created through a collaboration of the UN Development Programme (UNDP) and the UN Development Group (UNDG), which started an unprecedented global conversation among a diverse group of stakeholders over the last three years. The 17 Goals are very ambitious, aiming to end poverty, extreme hunger, ensure quality education for everyone, improve healthcare, end gender inequality, protect, restore and promote sustainable use of ecosystems to improve social and economic development and end inequality.

Why are these Goals so important? The Millennium Development Goals have already been a great success. The MDGs have put focus on improving lives for everyone and highlighted the importance of monitoring and evaluation (M&E) exercises to see the progress countries made and where they were falling short. On many measures, the lives of people have greatly improved over the past 15 years. 70% of developing countries have cut extreme poverty in half, child mortality has been reduced by 50% and less people are dying from infectious diseases like HIV/AIDS and Malaria.

But there is still a lot to do. Maternal death might be near zero in high-income countries, but still 1,500 out of 100,000 women in developing countries die while giving birth, showing that there remains an enormous disparity between emerging and developed countries. School enrolment rates continue to be low in developing countries, over 750 million people lack

access to clean water, and women all over the world continue to face discrimination in access to work, economic assets and participation in private and public decision-making.

What does ICT have to do with achieving the SDGs?

At Close the Gap, we believe Information and Communication Technologies (ICT) plays a crucial role in achieving the SDGs. ICT have been transforming societies since decades by contributing to economic growth, bringing new ways to deliver education, healthcare and government services as well as creating a global information society. ICT is seen as an enabler



for global economic and social development since it has the potential to work as a catalyst for the three pillars of sustainable development; economic development, social inclusion and environmental protection.

Since more than a decade, Close the Gap has been working on bridging the global digital divide, facilitating access to ICT in the sectors of education, healthcare and economic transformation of developing communities. Close the Gap believes in the power of

education to achieve the SDGs and improve future perspectives on our planet, where providing basic prosperity for all and environmental protection will be a global norm. Education is one of the most powerful instruments for reducing poverty and inequality and lays a foundation for sustained economic growth. Yet, many children in developing countries lack access to quality education and knowledge. This knowledge gap is increased by their limited connection to ICT, the key driver for improving the educational and economic prospects of a country in today's modern world. At Close the Gap, we try to bridge the digital divide by offering high-quality, pre-owned computers donated by European companies to educational, medical and social projects in developing and emerging countries.

Even in the most remote areas in Africa, where there is no connection to the electricity grid, Close the Gap looks for innovative solutions. Our [Digitruck](#) for example, a mobile, multi-functional IT lab fit in a 40' container and powered by solar energy, tries to assure that nobody is left out in our quest for worldwide access to inclusive and equitable education (**Goal 4 – Quality Education**).



Digitruck in Kilimanjaro region, Tanzania



Digitruck in Cape Town, South Africa

Having a quality education will improve chances in the job market, since digital skills are a primary requirement for any job. Therefore, ICT helps reducing poverty (**Goal 1 – End poverty**), and stimulate the economy. (**Goal 8 – Decent work and Economic Growth**). Access to ICT for women empowers them to stand up for their rights and demand equality (**Goal 5 – Gender Equality**).

We believe that education is one of the main pillars of sustainable development and Goal 4 is key to achieve other goals, ensure sustainability and involvement of different generations. Our projects are focused on education, and provide primary schools and universities with IT labs. Our project portfolio includes:

INES-Ruhengeri Institute of Applied Sciences



INES Ruhengeri Institute of Applied Sciences is a higher education institution in Rwanda providing quality of education and research tailored to priority needs of the region. In 2010, INES-Ruhengeri adopted a new teaching methodology with the aim to bridge the gap between academia and community development needs. With computers donated by Close the Gap students and staff gained access to computers which is an essential requirement for applied sciences education.

Msandaka Lions Deaf Centre



Msandaka Lions Deaf Centre (“Msandaka” or “the Centre”) is a governmental primary school (grades 1 to 7) for deaf children, founded in 2001 as a joint venture between Moshi Municipal Council, Lions Club of Moshi Kibo, and Comprehensive Community Based Rehabilitation in Tanzania (CCBRT). Close the Gap brought special needs computer software and hardware.

The 1 Slum 100 Computers project



The 1 Slum 100 Computers project is a self-sustainable project providing computer training and entrepreneurship mentoring to disadvantaged youths in Eastern Nairobi slums, Kenya. The project provides training to 3 groups of 10 people to make them ICT-literate and build a profitable computer based business.

The SDGs go hand in hand; achieving one goal might be dependent on another goal, which creates a dizzying matrix of networks. Unlike the Millennium Development Goals (MDGs), the SDGs strongly emphasize the engagement of different stakeholders, such as governments, NGOs, local communities, civil society, industry, corporations and international organisations which creates a multi-layer international cooperation and coordination challenge. ICT is one of the ways to facilitate those partnerships (**Goal 17 – Partnerships for the Goals**), and can also provide practical solutions to capacity building and sharing, enhancing monitoring and transparency of the global development work, which are essential to meet the Goals by 2030.

Giving a second life to a computer prevents the use of:

- 250 kg of Fossil Fuels
- 20 kg of Chemicals
- 1,5 tonnes of Water

CLOSE THE GAP

ICT is key to better education and foster development, which will boost the **industry, innovation and infrastructure sector (Goal 9)**. It will also not only create awareness related to the environment and preservation of the planet as well as promoting **affordable and clean energy (Goal 7)**, but will also foster a change in people's behaviours towards the environment and switch to **sustainable cities and communities (Goal 11)**.

But how is Close the Gap contributing to achieving the SDGs?



15 IT devices = 1 computer lab



1 computer lab
can reach 240 kids per week

In 2015, 95 companies donated 72.259 assets. Out of those, 15.592 computer assets were re-deployed into 859 projects.

Since its creation thirteen years ago, 371 companies donated 522.020 computer assets. 119.879 assets were re-deployed into 4.359 different projects, all around the world, providing access to ICT to millions of kids and thus a brighter future.

Teachers and students realize that having access to ICT is a unique opportunity to increase kids' chances in the market place:

"We welcomed this project and we sincerely thank the initiators of the project. For us, it's kind of a miracle because we had a computer course but without practice because of a lack of teaching materials (computer), we were not touching the computers, we were managing in the city. Today, we have the opportunity to learn at schools and reconcile the theory with practice, really it is a joy for us.

Thank you BAC and its partners. Our hope is that this project is implemented throughout DRC. Thank you." Student of 5th Grade Electricity – Saint Cyprien School, DRC

"Today, we are grateful to the team Mr. Ralph and his colleagues for sharing this hidden knowledge with us, the templates they have given us will be useful. We thank God, management especially, director for making this course take place. Our overall thanks go to Savana Signatures." Solomon Hadings – Teacher at Star of Suhm school, Ghana.

But what happens to ICT assets at the end of their second life?

As a promoter of sustainability and circular economy, four years ago, Close the Gap launched its spin-off organisation, WorldLoop. Its mission is to eliminate the negative impacts of e-waste by turning it into sustainable human and economic resources. This is accomplished by facilitating the creation of accessible, environmentally sound, socially responsible and sustainable e-waste recycling solutions in developing countries.

WorldLoop also works toward achieving specific Goals. Particularly, WorldLoop empowers local communities to develop environmentally friendly collection and dismantling solutions for end-of-life IT devices. If fractions are properly extracted, the quality of the minerals remain good enough to be sold and reintroduced in the production stream. This empowers local communities to generate self-revenue, build their e-Waste facility and create local green & sustainable jobs. Each project enables local communities in Africa to avoid continued environmental and health damage from primitive e-waste recycling practices. **(Goal 8 – Good jobs and economic growth)**. WorldLoop's activities enhance the responsible resource use, reuse and ultimate recycling of ICT equipment, providing a transparent collection and treatment stream of all e-waste fractions. As the fractions are reintroduced for new manufacturing instead of being disposed in landfills or incinerated, fewer new resources are needed **(Goal 12 – responsible consumption)**.

WorldLoop provides social entrepreneurs with seed funding and technical support for strong business cases that involve setting up an infrastructure for e-waste recycling and making it self-sustaining over time. WorldLoop supports e-waste management in the East African region and Africa as a whole. However, WorldLoop cannot achieve this alone. Cross-sector engagement and collaboration as a partner and fundraiser are needed to make our aim a reality. WorldLoop could not exist or achieve the Goals without its strong community of partners, sponsors and extended network. WorldLoop and Close the Gap have a sound

network of partners, ranging from small and medium size local start-ups and NGOs in Africa to major multinational corporations. We are working to bridge the global digital divide, as well as, the cooperation and communication divide in the vast field of international development. **(Goal 17 – Partnerships for the Goals)**. Our portfolio of projects include:

Great Lakes Initiatives for Community Empowerment (GLICE)

Burundi



GLICE has established a centre that collects, registers, dismantles and stocks electronic waste in Bujumbura, Burundi. The centre also refurbishes the electronics that have a potential second life. Moreover, the centre had started turning a small profit by refurbishing and reselling functional equipment under a guarantee, and selling valuable components of the separated fractions. In 2015, GLICE collected more than 30 tonnes of e-waste.

The WEEE Centre

Kenya



Launched as a pilot project in 2010, the WEEE Centre was the first e-waste recycling facility in East Africa. The WEEE Centre is involved in the collection, manual dismantling and partially automated processing of end-of-life ICT equipment in Kenya. In 2015, the WEEE Centre collected almost 130 tonnes of e-waste.

WorldLoop and its recycling centres do not rely on government subsidies, but on Corporate Social Responsibility support and the revenue from fraction sales. WorldLoop has taken an innovative approach, as an environmental non-profit, to facilitate an operational and economically viable network of collection points, dismantling and recycling facilities in developing countries to process e-waste in a safe and environmentally sound way **(Goal 9 – Innovation and Infrastructure)**.



What does it mean in numbers?

Since 2012:



967 tonnes of e-waste collected and offset



Almost 210 tonnes of hazardous e-waste treated in Europe (shipment of 18 container)



1.392 tonnes CO₂ Emissions avoided*

[*CO2 Logic Disclaimer](#)

The Belgian CO2 environmental consulting firm CO2logic performed an in-depth analysis of WorldLoop's operationalization of the Best of 2 Worlds (Bo2W) to answer this question. For every ton of e-waste collected and recycled; 1.44 tons of CO2 emissions are avoided.

CO2 Logic Disclaimer

The activities of WorldLoop will emit greenhouse gasses and thus have an impact on the climate. The collection of waste with trucks uses fuel, electricity used in the sorting centre, and the transport to Europe by vessel also uses fuel. CO2 Logic calculated the impact of those activities on the climate.

However, the activities of WorldLoop also avoid emissions. Indeed, due to the recycling of material and reintroduction into production, less new material will have to be produced. Because the production of material from virgin resources needs more energy, and emits more greenhouse gasses than recycling, the activity of recycling "avoids" the emission of greenhouse gasses.

In the calculation for the avoided emissions CO2 Logic included:

- the metals and precious metals that are recovered in Europe will avoid the production of metals from virgin resources. The difference in greenhouse gas emissions between the two production systems are the avoided emissions.
- for the recycling of metals in the formal African recycling sites the avoided emissions are also taken into account (compared to the production of virgin material)
- for CRT-glass the avoided emissions are calculated by TNO, taking several factor of the downcycling of the CRT-glass into account
- plastics recycled in Europe replace the production of plastics from virgin resources
- downcycling of plastics in posts by Ecopost is treated with precaution because it is not sure if this replaces plastics from virgin materials or other materials such as wood, metal, etc. Avoided emissions are reported separately.
- also for recycling of metals in the informal economy, we are very cautious because we are not sure how much energy is used. Expected avoided emissions are reported separately.
- the treatment of waste in Europe also avoids emissions. If wood is for example incinerated with recovery of energy to produce heat or electricity, this emits less greenhouse gasses than the production of heat or electricity using the typical energy production system. The avoided emissions due to waste treatment in Europe are also taken into account.
- for waste that is send to Asia, the avoided emissions are unsure, so the expected avoided emissions are reported separately.
- for waste that is treated in Africa or Asia in the formal or informal economy, no avoided emissions are taken into account