

Annual Report 2021



humasol

renewable technology for all





Index

| | |
|-------------------------------------|-----------|
| Preface | 3 |
| Humasol Mission and Vision | 5 |
| Project Locations | 6 |
| Humasol Leuven & Ghent | 7 |
| Humasol Weekend | 12 |
| Looking back: Projects 2021 | 14 |
| Looking ahead: Projects 2022 | 20 |
| Thanks To | 25 |
| Contact | 27 |



“

Preface

Welcome, Humasol enthusiast! Thank you for your interest in our organization and our annual report.

Looking back to 2021, I am both grateful and proud. Grateful to all our members and students for their endless motivation and enthusiasm and proud to everything we have achieved in the past year despite the unfortunate circumstances. We had no other option but to cancel our projects once again during summer for safety reasons, which has been disappointing for all of us. However, we have never given up on our mission and continued developing ideas and designs to prepare for the upcoming year.

While the project execution on site could not be possible this summer, we have put extra focus on finding alternative ways to reach our promised impact locally. We had to reinvent ourselves once again, from project executor on site to remote advisor. We made sure our preparatory work was not lost, by transferring all needed information to the communities locally and by supporting our local partners remotely this summer. That is how we were able to complete activities by local subcontractors or prepare a clear plan to execute them in 2022. This once again has shown the strength and willingness of our organization - in collaboration with our project partners - to make sustainable and social change happen, in what way that may be!

After two turbulent years, I am looking forward to all the great achievements ahead of us and invite you to keep supporting us along the way! I have great confidence in the new board that is full of energy and drive to keep improving ourselves and keep fighting for our mission to make renewable technology accessible for everyone.

Enjoy the read and get inspired!

**- Hanne Pittomvils,
Humasol President 2020-2021**



”



Preface

“

Hi Humasol enthusiasts!

After two years of hybrid and online working and two summers without projects abroad, I am very happy that we managed to kick-off this semester in real life. Even after these challenging years, our Humasol team is more motivated than ever, which already resulted in organising two student kick-offs, two climate transition talks, a fantastic weekend and much more. I want to thank all Humasol members and volunteers for their everlasting drive and motivation. I am very much looking forward to going into 2022 with this team and building together to our dream to make renewable energy, water and sustainable technology accessible to everyone. More is yet to come!

We have also welcomed a new delegation of motivated students that are destined to contribute to this mission. We will execute 10 projects this year, partly focusing on well-known technologies such as solar pumps and PV installations, complemented by topics that are new for Humasol, such as the cold chain and building fuel-efficient cooking stoves. Every year we try to rediscover ourselves and analyse where we can provide the greatest added value for people in need. Our students have already put a lot of effort into designing their technical concepts and the following months will be entirely devoted to finalising their design, keeping in close contact with the project partners and making the last practical preparations before leaving to their project locations during the summer!

On behalf of Humasol, I want to thank you for your interest in our organization and I wish you a lot of reading pleasure!

”

- Louise Dalle,
Humasol President 2021-2022





Mission

We are a non-profit organization with the goal of making renewable energy, water and sustainable technology accessible to everyone. We operate in Africa, Asia and South America.

Vision

Humasol works closely with local partners in the South to find a sustainable and high-quality solution for technical problems. During our projects we pay attention to the technical aspect, such as the design and installation of photovoltaic solar panels, but also to the socio-economic context, such as setting up local management organizations that maintain and monitor the installations.

Our projects are carried out by students and volunteers who, after thorough preparation in Belgium, spend several weeks or months at the project location.



Project Locations



2021-2022 Projects

Cameroon – Lumos

Kenya – Pamoja

Senegal - Smart Villages / Bagaya

Uganda - Elgon Cool Solutions

Ghana - FOS

Uganda - Sahaya / Ekisande

Congo - Mama Lufuma

Gambia - Warme Gloed / Gamrupa

Malawi - Kudimba



Humasol members and students





Humasol Leuven

“

The vaccination roll out allowed us to restart organising physical meetings and events, whilst continuing to benefit from the efficiency of an online meeting. Due to several board members being on Erasmus or living in cities other than Leuven, the stadsmeets were held in hybrid form. This allowed everyone to be present and at the same time see each other face to face and have a drink afterwards, an informality we had been looking forward to since the start of the pandemic.

We were delighted to complement the familiar faces from last year with a wonderful new group of project students who have already shown their determination, excellent wit and devotion to their projects. In spite of being faced with challenges and/or large uncertainties, they have taken them head on with an open mind and positive attitude. What more could we wish for? Oh yeah, an amazing team to support them of course.

The Public Relations team occupied themselves with the organisation of a Climate Transition Talk which gave a platform to lecturers from various disciplines to discuss their insights in the problem of climate change and its solutions. The Projects and Human Resources teams took the project students under their wings and organised several 'SBPW' sessions, IMC trainings and our annual Humasol weekend. In the shades, the Partner relations group kept in contact with existing partners whilst trying to build relations with new ones, whilst our Finance team watched diligently over our bookkeeping. Communication, whom we have to thank for this beautiful yearbook, made sure the outside world could follow our workings and arranged our internal communication channels to ensure quick and agile operation.

We will continue to improve our organisation step by step and hope to deliver a great set of projects this summer by supporting the students in their efforts as best as we can!

**- Niels Descamps,
Vice-President Leuven**

”





Humasol Ghent

“

In Ghent, we have tried to reconnect to each other after a year of online meetings and chats. We can certainly tell you that our *stadsmeeets* were way more pleasant with a bite and a drink afterwards. As always, duty and pleasure should go hand in hand! Unfortunately, corona did influence our way of working at the end of the semester because the last *stadsmeeet* needed to be held online again. We will certainly make up for this in the new semester and enjoy a few drinks (and maybe some pizza) together to have a smooth kick-off!

We can certainly say that the Ghent Humasol board is working harder than ever. The Climate Talk, our first big public event in Ghent, was a huge success because of the interesting speakers and topics. Moreover, the herb cheese appetizers were flawless!

Not all of our leisure activities included food and drinks, however. To end the semester with a bang, we went ice skating at the Kristallijn with the Ghent board and students. Some of us really found their inner Bart Swings and Loena Hendrickx, whilst others preferred to stay close to the walls for support. It really was the perfect way to end a day full of presentations. We might even make a tradition out of it. And yes... of course we ended the evening with a wonderful hot chocolate.

Next semester, we will keep on working together to recruit new students and organise some other events you can't miss. Stay tuned...



”
- Lara Vissers,
Vice-President Ghent



Climate Talk Leuven

In October 2021, the Public Relations Team Leuven organized the Climate Transition Talk. This evening focused on the very topical theme of climate change and the associated socio-economic transitions. Three experts were invited to give their vision on this topic and afterwards a reception was held where the project students of Humasol could present their projects.

The first speaker was Karel Van Acker. He introduced the climate issue and showed us that this issue is not a far-fetched show. He gave us some tips to reduce our emissions as consumers, such as avoiding eating red meat and choosing green electricity. He indicated how important it is to talk about this issue and use our democratic rights.

The next speaker, Serge de Gheldere, is an excellent example of someone using our democratic rights. As chairman of 'Klimaatzaak', he filed a lawsuit against Belgium's current climate policy. Additionally, he indicated that collective action must be taken and by means of a few examples he showed that an advancing economy and employment rate can go hand in hand with sustainability. He urged everyone to become an ally of 'Klimaatzaak'!

Nicole Van Lipzig concluded this interesting evening. She spoke about the scientific side of climate change. Using examples, Van Lipzig demonstrated that the current extreme climate-related events do have a human cause.





Climate Talk Ghent

The Humasol Climate Talk was held on the evening of the 21st of October, 2021. This talk was organized by Humasol's Public Relations team in Ghent. The main purpose of this evening was to inform students about the consequences of the climate change in Belgium and why it's so difficult to take action.

The evening focused on three main aspects of climate change in Belgium; the scientific one, the psychological one and the legal one. Humasol invited a different speaker for each aspect; Willy Baeyens spoke about what is needed to make Belgium climate neutral by 2050, Frederiek Depoortere gave more insight on the human behavior and climate problems, An Cliquet closed this interesting evening with a talk about the legal problems in Belgium and how other countries solved these. There was a possibility to ask questions after each talk which was used gratefully by the audience and led to more interesting topics.

The talks were followed by a small reception, people caught up with each other and talked about what they've heard.





Humasol Weekend

After last year, where it was very difficult to organize activities due to corona, we were finally able to get together and organize a weekend for all students and members. The place to be was JVC Kamphuis Pax in Lille (not the French city). A location we had to book two weeks before the start of the actual weekend, because we found out there were no beds in the original venue.

We started the weekend with a nice quiz on Friday evening, where we tested everyone's knowledge on music, movies, riddles and their fellow group members. But the thing everyone will probably remember are the amazing tableaux vivants, for which each team had to recreate a famous painting. The results were astonishingly accurate but most of all hilarious to see.

Saturday morning we went geocaching in the surroundings. For every cache that was found, each group got one question to reveal the identity of a secret famous person. Surprisingly, almost everyone discovered the name of Louis Neefs, a former citizen of Lille. Although we still suspect a few groups of having worked together.





Humasol Weekend

In the afternoon it was time for the students to have one of our famous Intercultural Management and Communication (IMC) sessions. This session focused on communication, both during the preparation phase and on site, but also the job instruction method and visual management were discussed. Meanwhile the board had brainstorm sessions on topics such as the follow up of our projects, roadmaps for the different working groups and possible events in the second semester. For the supervisors of the student teams, a coaching session was hosted, a very interesting initiative that we will definitely re-organize in the future!

After we were again spoiled by the cooking crew with some more delicious food, it was time to stretch the legs and have a party. The pictures of this legendary evening are unfortunately for internal use only. :)

The last day started with a second IMC session for the students, where they discovered themselves in a roleplay how difficult it can be to reach a consensus when everyone is defending their own interests. The board had some more meetings and after the clean up was done, this was already the end of our fantastic weekend. But no despair, we are already looking forward to the next Humasol weekend in the second semester!





Looking back

Humasol was, just like the rest of the world, affected by COVID-19: project students that were supposed to carry out their project during the summer of 2021 were not able to go to their country in the South. However, we did not throw in the towel, instead we challenged the students by helping and guiding their partner and the local team remotely. Although this was not an easy job, project students succeeded in realising great impact together with the locals.





Looking back

Lumos Cameroon



Unfortunately, travelling to Cameroon was not possible due to corona. We decided to execute the project remotely. Guided by us, local technician Chrysantus and his own company 'Afrique Electrical' took on the work: ordering components, improving the roof structure, installing the PV-panels, UPS and cabling. Unfortunately, payment troubles, delivery delay and the rainy season pushed the finish line towards March 2022, but we are very happy that our installation is being tested at the time these words are written and is soon to be taken into service.





Looking back

Lumos Cameroon

Douala's Padre Pio hospital regularly suffers from an unreliable electricity supply. Power interruptions occur on a daily basis and can span several days, healthcare quality is affected and electrical equipment is damaged. An emergency diesel generator provides a temporary solution during outages, but can only run for a few hours at a time before overheating. Humasol to the rescue!

“

Normally, this summer, we would have gone to Douala to install a PV-based UPS-system in the hospital. With this installation, we hope to ensure at least 24h of power for the most essential equipment and lighting during outages: an anaesthesia machine, a lab fridge, two blood analyzers and lighting of the maternity ward. In this way, healthcare and power quality are improved and the lifespan of the appliances is extended. A second goal of our project was looking for other possible improvements to the hospital's electrical situation. Lastly, we wanted to implement a follow-up system, ensuring fast problem-detection and automatic fault warnings.





Looking back

Lumos Cameroon

“

Besides the new installation, some other improvements were implemented along the way. During power outages AC's are now automatically shut off, because they consume a lot of energy and turned out to be the main cause of the generator overheating. Also, we let Chrysantus replace all fluorescents lamps by energy-efficient LED-strips.

Last but not least, a reliable follow-up system was assembled from both Victron electrical components and some self-written python scripts.

Thanks to the close collaboration with the local technicians and the staff of LUMOS, we believe the project should come to a successful conclusion shortly!

”





Looking back

Pamoja Kenia

Pamoja Mission Africa (PMA) is an organization which supports orphans and vulnerable children and provides basic education. Their goal is to guide them until they can spread their wings and fly. PMA also owns a piece of land, where the Newland school is located and crops are grown. These are used to feed the children. Cooking is done twice a day: for breakfast and lunch. Furthermore, a livelihood group for the parents was established. In this group, parents support each other and discuss how to solve problems.



“

In the Newland school, there was already a connection to the electricity grid. However, since the grid is very unreliable, there were very frequent blackouts, which could last more than a week. Therefore, we decided to provide them with energy through a solar system. This is an off-grid installation, which means that the energy is stored in batteries. The PV installation will be used for lighting (which is important in terms of security), charging of phones, a television, an electric water heater, blowdryers and an iron. Since the number of students in the Newland school is expected to increase to 60 at most, this was also taken into account when sizing the PV installation. The beneficiaries of this project are the whole Pamoja Mission Africa team, the parents and most importantly the children they support. The facilities will also be available for the villagers. Women empowerment meetings are held here, and with the lights installed they can be held in the evening.



Looking back

Pamoja Kenia

Unfortunately, we were not able to execute the project ourselves, because we could not travel to Kenya due to corona. Hence, we decided to remotely guide everything. We contacted a local company called Chloride Exide, which is specialized in placing this kind of installations and started procuring the different components. Thanks to the smooth cooperation with Chloride Exide, the PV system was installed in September and since then, PMA has finally been able to benefit from it!

Furthermore, we explored the possibilities of a clean cooking option, in the form of an improved biomass stove, equipped with a chimney. At the moment cooking is done with charcoal and firewood. Since this is unhealthy, expensive and not sustainable, an alternative way of preparing the food is required. Due to corona, there are issues with the delivery of the stove but the installation will take place as soon as possible.

”





Looking ahead

Gambia – Warme Gloed



The team is committed to providing a local community with sustainable drinking water, infrastructure and the knowledge to expand.



Warme Gloed



Robben Baetens
Senne Strobbe
Mathis Bracke



Mozambique - OvO

The team helps local start-up Elgon Cool Solutions develop its eco-friendly powered, cooled storage and transportation business, aiming to reduce food waste in Uganda.



Ondernemers voor Ondernemers
& Elgon Cool Solutions



Louis Verheyen
Hannah Vanhoof
Willem Vanmoerkerke
Kate Mouling





Looking ahead

Malawi – Kudimba

The project entails the installation of solar PV panels for the Kudimba project in Malawi. Kudimba is a place where older children, teenagers and young adults can maximise their potential, learn and develop skills, and lead a fulfilling life.



Kudimba

Lina Debeer



Axelle Moortgat
Jarne De Nies
Pieterjan Espeel



Gambia - Gamrupa

The team aims to create a recycling centre in Sifoe. In this centre, locals can recycle and shred the plastic waste. Finally the products like plastic cups, bowls, tiles... can be sold on the market or used to improve the standard of living.



Gamrupa



Emma Sageot
Soetkin Barbaix
Matthijs Coninx
Nina Claessens





Looking ahead

Senegal - Bagaya



By providing a stable energy supply for a maternity, dispensary and residence for medical staff, the team aims to improve healthcare in the rural village of Bagaya.



Bagaya & AJB

Joke Plas

Robrecht Abts



Arno Hegge

Stef Van Loon



Uganda – Ekisande

With a new PV-system, cell phone charging point and solar pump at the primary school of Kisebere, the team hopes to bring electricity and potable water to the local community of Bwera.



Ekisande



Pieter Quaghebeur

Ryan De Koninck

Yaro Debeer

Eveline Wuytens





Looking ahead

Ghana - FOS



Replacing a manual pump with a solar pump and water reservoir, the team aims to provide the local community of Gyaha with continuous and sufficient potable water, and to introduce good hygiene and sanitation practices.



FOS & COLISO

Lise Van Coillie

Michiel Matthijs



Nathan Bruynoghe
Cato Billiet



DR Congo - Mama Lufuma

To make the educational centre for single mothers in Matadi less dependent on the unreliable general power supply, the team will install a new internal electricity network and solar panels.



Mama Lufuma



Adriaan Lamote
Elisabeth Depla
Julian Roba
Lars Baert





Looking ahead

Uganda - Sahaya



The fuel-efficient cooking stoves designed by the team, will not only reduce wood consumption but also fire injuries, indoor air pollution and respiratory problems, and will leave the community of Bwindi more time for work and education.



Sahaya

Douwe De Vestele

Michiel Devolder



Hannah Lozie



Senegal - OvO

In this multidisciplinary project, the team is involved in the design of a PV-array for a solar pump, analysis of a basic solar tracking system and marketing research on the use of induction cookers as a more healthy and sustainable way of cooking.



Ondernemers voor Ondernemers



Lise Vanden Bergh

Emma Van Roy

Maxim Rutten

Cas Decancq





Thanks To

Our sponsors





Thanks To Members & Volunteers

Board of Directors (2020-2021)

Hanne – Louise – Lise – Maarten – Niels – Manon – Ruben – Ryan – Willem Ve

Board of Directors (2021-2022)

Louise – Lara – Niels – Emma L – Emma S – Michiel – Robben – Jarne – Liske – Willem Ve

Members

Britt – Axelle – Toon – Midas – Tom C – Lina – Jules – Yarno –
Charlotte – Toon – Liske – Matthieu – Matthijs – Pieterjan – Eline – Lien – Simon – Brecht – Steven –
Willem L – Simon – Hanne – Maarten – Merel – Emilia – Miel – Ute – Laura – Senne – Elisabeth –
Mathis – Elena – Caydie – Justine – Gabriel – Michiel





Contact

More information

www.humasol.be

Email

info@humasol.be

Support our cause:

IBAN: BE35733055853337

BIC: KREDBEBB

Desguinlei 214

2018 Antwerpen

BTW BE 0809.102.140



Follow us @Humasol!

