



Technology without Borders Newsletter I / 2018

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Editorial

Dear members, dear friends and dear facilitators of **Technology without Borders**,

the trip of the three German board members Veronika Birk, Robert Schullan und Frank Neumann brought some perceptions about the collaboration of the main association and the country group. On one side we saw that the VC's or leading members of the universities in that cities where we have regional groups show a high interest for a cooperation. In Kumasi we could bring the open discussion about a memorandum of understanding (MoU) to a close. On the other side we saw very clear that our Ghanaian members really do not know how many topics and different kind of projects are meanwhile executed by Technology without Borders (TwB) worldwide. At this point we have to strengthen our efforts to show the country groups the different topics we are working on. This we will reach by our Newsletter in English as well as by intensified thematically activities of our German workgroups in the country groups.

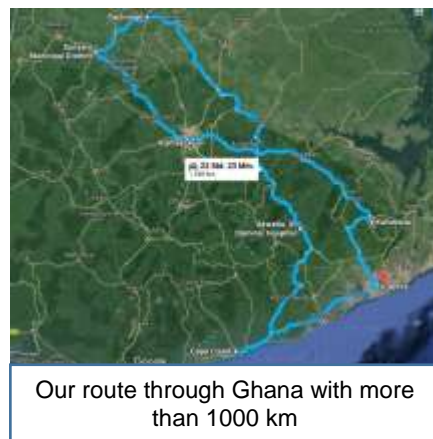
Your German board

F. Neumann, F. Regler, R. Schullan, N. Nguyen, V. Birk, M. Huber, D. Schaffert, M. Stephan

TeoG visits Universities and RG's in Ghana

At the end of 2017 the three board members Dr.-Ing. Veronika Birk, Dipl.-Ing Robert Schullan and Dr.-Ing Frank Neumann visited Ghana. Main objective was to deepen the contacts from 2014 and to build up new contacts. The discussions with our members and regional groups did get not missed out and so we took back a lot of important impressions.

In one of our last board meetings we decided that at least one of the German board members should visit the county groups and the their regional groups. One main point of this visit should also be the participation of at a Ghanaian board-/ advisory board meeting of the country group. We were very sorry that this meeting could not happen due to absence of main board members that have been abroad. So we reduced our journey in the late autumn of 2017 to on-on-one discussions with the remaining board and advisory board members during our meetings with the Ghanaian regional groups. From the side of the board all the time Rahim was very helpful for the whole planning. In addition, the planned visit with the German ambassador in Accra was canceled due to short dated appointments of the German ambassador. Nevertheless, we all resumed that our journey was really successful because our meetings with the regional groups and the VC's or leading members of the Universities gave us a lot of insight awareness. Therefore we found big management attention for our request that TwB projects could also be accepted as an academic activity. Precondition is that the student finds a professor or lecturer for the approval of the project and that the academic standards are fulfilled. All meetings at the Universities had the same agenda. Introduction of the University as well as TwB followed by a discussion about joint projects. Our journey led us from Accra over Cape Coast, Kumasi, Techiman to Koforidua and back to Accra.



Accra: At the beginning of our journey we visited the RG Accra. The head of RG Accra, Julius Botchway arranged everything very well. As a patron and also as a representative of the university had invited the RG the Senior Research Fellow Dr. Annang to the meeting. On recommendation of the RG Dr. Annang will represent in future the RG Accra in the Advisory Board. The University of Ghana pursues currently the project "Green Campus" and that's why is interested very much in a cooperation with TwB. Furthermore Dr. Annang shows great interest in from TwB already several times in Ghana to build dryly dividing toilets, so that we will establish a contact with the University of Applied Forest Sciences Rottenburg, Prof. Friedle.

Cape Coast: The next station on our trip was a Cape Coast. Same as in Accra the leader of the RG Tepson Dela had prepared our visit again very well. Nasir, a representative of Recycle Up! Ghana accompanied us to a school where "RuG your school" has been implemented. In a the 2 hour visit we mentioned that still one of the promised bins was missing, the collecting of the Water Sachets had

been stopped because nobody picked up the collected plastic waste. The originally by RuG trained students had left the school and because there was no instruction material of the RuG-Know-How existed now only rudimentary or was lost.

The meeting with the RG and the representatives of the University Cape Coast (UCC) proceeded again very informatively and successfully. At the meeting with the regional group were present again the patron Dr. Essien as well as a representative of the university management, Dr. Samuel Annim. RG President Tepson Dela presented the projects of the RG (Teaching Computer Basics (TCB), the campus dustbin project, RecycleUp! and the Regenerating Wells project). The discussion proved that between TwB and the UCC are several points of contact. Also the UCC Management reacted positively to our inquiry of the acceptance of TwB projects as academic work.



Kumasi: Our visit in Kumasi was arranged by the leader of the RG, Isaah Iddrisu, again very well. Except the planned visit of a second RuG school everything worked perfectly. The „Regenerating of Wells“ guys with Robert, Jannik and Jan-Niklas were already for a few days earlier in Kumasi and had beside the regenerierung of a well in the place Banu also a Workshop for the same topic. Members from all regional groups were invited. The aim of the Workshop



Participants of the Regenerating Wells Workshops

was the training of the essentials for regenerating wells as well as for an independent project realization by our Ghanaian members.

In the university of Kumasi VC Prof. Obiri-Danso welcomed us. As a small surprise Prof. Obiri-Danso found out that the TeoG president wore a tie with the coat of arms and the colours of the Kwame Nkrumah University of Science and Technology (KNUST)☺. Because since our last visit the university management has changed, we explained the activities of TwB in general as well as on the basis of various projects. Then on this base an intensive exchange of information took place. As a result of the discussion meanwhile the memorandum of Understanding (MoU) between the University of Kumasi and Technology without Borders was signed by Prof. Obiri-Danso and us. (See below short communications for more information.)



Sunyani: The meeting in Sunyani is meanwhile a visit with old acquaintances for us, because we know the VC of the UENR, Mr. Professor Dapaah, Dr. Nana Derkyi and the leader of the TwB RG Daniel Owusu already from meetings in Germany very well. Nanas woman, Dr. Mercy Derkyi also took part in the meeting and we discussed whether Mercy could carry out a project in Ghana for the compensation of the carbon footprint we create during our projects by flying through the



world. At the meeting we also presented a concept of a low-cost barrelyser for producing charcoal out of cocoa bowls that was developed at the Cologne University - Cologne institutes for Renewable Energy (CIRE). A similar draught is also already pursued at the UENR. Here it is obvious to establish contacts with Prof. Schneiders and Christian Kleinschmidt.

Techiman: The place where everything began! In Techiman Veronika and Frank began the very first project of "Technik ohne Grenzen". In this respect the reception by the administrator of the hospital, Mr. Christopher Akanbobnaab, was especially kind and we all went together around the hospital to have a look at the new Emergency. Also our working group Hospital Support plays an essential role in this area.. Furthermore we looked at the space in which TeoG RG Ansbach with Ulrike Werner and Johanna Kiefer builds up an orthopedics workshop. The first cargo of collected wheel chairs and crutches is already on the way to Ghana in a container of the German Rotary Volunteer Doctors (GRVD).

Koforidua: For about 2 years we try to build up a new regional group in Koforidua. That's why we asked the VC Mrs. Professor Smile Dzisi for an appointment. She agreed and appointed the Dean of the technical faculty Dr. Kafui Ayetor to us as a contact and coordinator for all activities with the Koforidua University of Technology (KTU). 15 participants took part on the side of the University. After the two-way introduction, different possible project cooperation's were discussed.



Particular attention was showed again on the project „production of charcoal from cocoa bowls by a of low-cost barrelyser“. A huge topic surrounding this discussion was on how one founds a regional group. The further approaches for founding a new RG Koforidua should be cleared up and until we reach a stable status of the RG Dr. Ayetor and Dr. Neumann should stay in contact.

Accra: The last station of the journey was Accra again. Unfortunately, the planned conversation with in the German Ambassador was canceled. So the board of directors-visitor's group still had time to talk intensely to Rahim about the tense situation in the Ghanaian broad. One agreed that the situation must be improved as quickly as possible.

Frank Neumann, German board

Progress Report of my Ghana Trip

A new duty brings experiences which turned out just in the developing cooperation extremely interesting and also instructive.

When Frank Neumann told me in the beginning of 2017 about Technik ohne Grenzen (TeoG), I was on fire immediately. I liked the principles and aims of TeoG, above all, however, the pragmatic besides survived well during the implementation of the projects. No wonder that I decided to spend my knowledge of decades of experience from the industry to contribute thus with my possibilities for the further positive development of the TeoG association.

As for all management members the suitable training and the profits of the direct experience belongs, however, to the takeover of responsibility also in projects on site in the operational area.

I finished the project leader workshop in Munich and I was absolutely inspired by the professionalism of the methodology. Just as with TeoG is also worked in the professional project management in the industry. Besides, appointment planning, milestones management and budget are quite essential elements.

My project application led me in November 2017 to Ghana. Jannik Mechau and Jan-Niklas Blind from Bayreuth RG had prepared two projects for their employment. I might take part for one week in the topic "Regenerating Wells". Of course I was integrated already intensely into the prearrangement, above all also at the organization of the final workshops on site in Kumasi. With this workshop, we wanted to achieve above all that the topic "Regenerating Wells" is continued in Ghana by the TwB RGs independently.

The work on site showed above all how successful-critical the right understanding for the different cultures and the local circumstances is. Instead of analyzing the wells in this village in one day, how intended, carrying out the treatment with Wessoclean and announcing success the next day, we needed three days. On the one hand all contacts had to be found on site, a mechanist who was working oth-

erwise had to be consulted and the chief of the village had to inform his people on time and extensively

about the planned works. At least the supply of water must be temporarily shut down for one day. On the other hand our project team also had to improvise, because all lab equipment was still absent and also other tools were not available.

So: Time, understanding, calm and persistence is essential to have.

Everything went well and during the morning of the third day we had increased the output of the selected well seriously. We tried to convince the people of the need of other servicing measures as well as the nomination of a person responsible for the condition of all village wells to the Chief. Was this successful? We do not know – the time will show it.

Next days we organized a workshop with participants from all Ghanaian RGs to pass everything we had learned so far.

Will our Ghanaian members do this well regeneration projects now independently? Yes, by permanent close contact with the project managers Jannik and Jan-Niklas we know that it advances.

Can one develop from this maybe even a local Microbusiness or develop principles for preventive maintenance? This is surely a topic for the farther future.

Our help was very much appreciated, but however it can become only sustainable, if we give confidence and competence to our Ghanaian members to go on working independently with the provided know how. Water suited for food is a human right – a principle, that Rotary Internationally propagates and the Rotary Club of Göttingen-Han. Münden made possible to us to help these 2000 inhabitants village by its donation.

Robert Schullan

„Water for Eritrea“ - project trip in September 2017

The first BMZ co-financed project of TeoG in cooperation with the medical humanitarian organization “ArcheMed-doctors help children in need” now is begun in the conversion. A project team from Hamburg has travelled for this in September again in the country to evaluate the first construction phase and to discuss the farther steps.



Group-picture at the dam

In September 2017 a project team from RG Hamburg has travelled once more to Eritrea to support the project of the water supply in the Begu Valley. We were pleased to see how the construction of the sand-storage-dam in summer of the Eritrean project partners proceeded, so that already a noticeable construction progress can be observed. In spite of a late rain season the first two steps of the central water overrun with a total of 0.5 meters could already become built, as well as the lateral upwards wing walls on about 3 meters. Im-

portant component of the work on site was furthermore the intensive communication with the project partners. Beside the already existing cooperation with the engineers of the Zoba Anseba and the local Water Resource Department, a contact with the local Catholic Church CESK was also established.

To ensure a sustainable social integration, besides, two additional Workshops with the local village population were carried out. Besides, a technical workshop which provided the technology of a step by step built up sand-storage-dam for the responsible water committee was carried out in cooperation with the local structural engineers. In addition, digital cameras were handed over to the villagers for a photo project about a weekend to document their quite personal view of the usage and importance of water. This made for the project group a comprehensive and up to now unique and uninfluenced view at the situation on site possible.

A detailed report of the project trip as well as a short film with impressions from on site are to be found on the homepage under www.teog.ngo/teog_project/wasser_fuer_eritrea/

Reinhard d. Luca., RG Hamburg

Travel to Tanzania in November 2017 for exploring hospitals in in the Diocese of Mbinga / Ruvuma

In November 2017 Wolfgang Zipf and Ulrich Puetz from RG Alzenau undertook a journey to explore hospitals in the diocese of Mbinga in the southwest of Tanzania (Ruvuma Region). To get an impression of the standards in the local hospitals the churchly hospitals in Litembo, Lituhi and Peramiho were also part of the visit.

The trip took place in close cooperation with Bishop John Ndimbo of Mbinga, who asked us to analyze in particular the situation of the hospital in Ruanda, a small town in the diocese of Mbinga (not to be confused with the African state of "Rwanda"). To get an idea of the local standards, the church based hospitals in Litembo, Lituhi and Peramiho were also visited.

The hospital in Ruanda takes care of about 100 inpatients and 600 outpatients monthly with a capacity of 80 beds. Due to higher mobility of patients, population growth, settlement of companies, growing demands are expected. The district capitol of Mbinga is 80 km away and can only be reached on mostly unpaved roads.

The supply of fresh water to the hospital comes from a source on the mountain, the amount of water is sufficient only for a supply of 5 hours a day. The power supply consists of two solar systems with capacities of 1 kVA or 2 kVA and a diesel generator delivering 5 kVA, which is preferably used for applications such as X-rays or sterilization only, in order to save money for diesel. Medical waste is incinerated in an oven which does not meet environmental requirements. A vehicle for the transport of patients, medicines or supplies for the hospital is not available.



Inspection of one of the hospitals

During the trip we developed more than 50 ideas to improvement projects, which we put together in a roadmap after a workshop with local hospital staff. This work has been warmly welcomed by the bishop and will now feed into a 4-year development plan that is currently being prepared.

Our newly established regional group Aschaffenburg-Alzenau will support the planning and, if necessary, implementation of suitable projects. The first approaches are already being considered on the topics of "electricity" and "water". In Ruanda a "Communication Team" has been founded which will support the projects on site.

We all hope that the future projects will be successful after a positive start of the cooperation.

Ulrich Pütz, RG AB-ALZ

Equipping a maternity ward (GHA43)

Timo and Jonas visited Agroyesum in Ghana from 20.11.17 – 10.12.17 to get medical equipment worth of 80.000 € to work and to train the personal of the hospital to use and maintain the equipment.



Timo und Jonas in action during the training

The medical equipment was donated by the Rotary Club Arnsberg in Cooperation with the RC Drachten and RC Techiman with a Global Grant and also the logistics were organized by them. We had to check the new equipment in Agroyesum and to put it into operation inside of a new building. The most important task was the training of the hospital staff to raise the quality of treatment and to secure the investments. Overall the project team trained over 70 persons in two weeks. Each of the trainings

was dedicated to fit for the needs of the staff. The project went well and the team returned safely after 3 weeks. There will be a follow-up where the team will support the hospital from Germany.

The official opening of the new Maternity will be in the beginning of February 2018 by the donating Rotarians and we also want to thank them for their support, especially Rotarian Egon Kobeloer.

Timo Meinderink, RG Erlangen

The Queen of Belgium visits Recycle Up! Ghana

Queen Mathilde of Belgium supported the implementation of the Sustainable Development Goals in Ghana and meanwhile visited one of Recycle Up! Ghana's school projects in Accra.

The Recycle Up! Ghana initiative already exists within our organization since 2014 and is since then working on awareness creation and solution finding to Ghana's tremendous waste challenge in close collaboration with young local people. One of the main activities are school projects with high school students.



The Queen undertook a 3-day state visit in Ghana which aimed at championing the Sustainable Development Goals within Ghana and at supporting local projects which contribute to the successful implementation of those goals. Recycle Up! Ghana was found to be one of the very committed projects of the country and therefore honored with the Queen's visit at the Sunflower School project in Accra. In this school, students are provided with regular workshops about the waste challenge, supplementing their school curriculum.

Accompanied by the RUG leaders Abdulrahim Shaibu-Issah and Julius-Jayson Botchway as well as the RUG-Team Accra, the Belgian Queen had insights into on-the-ground work RUG is doing in the schools by witnessing an awareness creation session and a practical session on creative craft-making with plastic waste materials.

The T-Shirt of RUG-members in royal hands

Queen Mathilde expressed her appreciation for RUG's commitment by stating the following:

"I am very pleased with what you guys are doing, coming here is already a great gift for me. Keep doing what you are doing. And as you said earlier about doing this (the RUG project), with the future leaders of your country. This will change your country. God bless you"

Julius-Jayson Botchway, RG Accra und Bettina, RG Bamberg

Water supply in the Brong-Ahafo- and Ashanti region

In the beginning of November 2017 Jan-Niklas Blind and Jannik Mechau from RG Bayreuth and our third board member, Robert Schullan, went to Ghana to continue with the regenerating wells project together with the RGs of Kumasi and Sunyani. We layed the foundations for a greater autonomy of the Ghanaian RGs for all projects concerning water.



Testing the well

The regional group in Sunyani was equipped with a lab to enable the analysis of the water quality in the surrounding village by their own. Therefore, a long and costly transport to the university in Kumasi will be prevented in the future. The lab equipment contains tests for manganese, ammonium, nitrate, iron, and coliform bacteria to determine their concentration in the well water. We also focused on training pre explorations and documenting together with the Ghanaian members in Sunyani.

In Kumasi, the knowledge of the ecofriendly chemical Wessoclean for the removal of clogging by iron and manganese oxides was trained with the regional group again. Furthermore, we successfully regenerated a well in the surrounding village Banko. In a following workshop for all Ghanaian regional groups, the knowledge in the field of project management and good documentation was enlarged. Moreover, Ideas about possible projects were exchanged.

Apart from some difficulties with customs regarding the lab equipment our stay was a success and without problems. The Ghanaian regional group members now have the knowledge and equipment to sustainably continue with the project. All project successes as well as the planned regeneration of further wells are possible due to the financial support of the RC Göttingen-Hann. Münden , something which we would like to thank for in this place.

Jan-Niklas Blind and Jannik Mechau, RG Bayreuth

Short Communications

Ongoing success for the project “regenerating wells”: Ghanaian TwB members visit a village in Northern Ghana

In February 2018 two members of TwB Ghana, Joseph from RG Accra and Edmund from RG Kumasi visited the 6000 inhabitant village Kabonwule in Northern Ghana to conduct an extensive field study including water analysis. Previous reports about problems with the water supply especially during the dry season were confirmed during the field study: 5 out of 6 wells are either not or hardly functioning due to different causes. For this reason, the inhabitants fetch their water from hand dug wells which they drink without any further treatment. Furthermore, the fluoride content of the ground water is too high. Currently, the TwB teams in Bayreuth and Ghana consider efficient ways and means for the improvement of the situation. We are very pleased to see the high motivation and self-initiative of our Ghanaian members as well as the collaboration of different Ghanaian regional groups to transfer the knowledge. Therefore, also the RG Accra has now expertise in the field of water supply. Moreover, the RG Sunyani participates by analysing the water samples with their new lab equipment. Finally, we like to thank the RC Göttingen-Hann. Münden for the funds. The funds will enable us to help Kabonwule to improve their water supply.

Jannik Mechau, RG Bayreuth

Trademarks of our Association „Technik ohne Grenzen e.V.“

Meanwhile we have registered) at the Brand- and Patent Office the following four brands:



Brand / Logo Germany



Brand / Logo International

Our oldest(eldest) brand and logo is „Technik ohne Grenzen“. We received the brand rights already 6 weeks after our foundation in 2010. This brand is a word brand what means that we have the rights in „Technik ohne Grenzen“. These three words represent our brand. Whenever somebody uses these three words subsequently, we can intervene at the Brand- and Patent Office and forbid the use. All the other brands / logos are word / picture brands, there the optical impression of our logo together with the text is the stamping sign in which we have protected our rights. For a longer period we have "TeoG" as our international brand / logo. This abbreviation is less well understandable for an English translation of our organisation, nevertheless, than it "TwB" is. After we own since autumn 2017 also the rights in both brands / logos „Technology without Borders“ and „TwB“ we have decided after longer discussion in the board of directors, conversations with some internal bearers of experience as well as our workgroup IT (WG IT), the word / picture brand as follows: As a German association we use for ourselves „Technik ohne Grenzen“ and "TeoG" (left pictures). International “Technology without Borders” organisations use this as well as "TwB" (right picture). We ask all members to do so in the future – in particular in the public relations.

Your German board

Memorandum of Understanding (MoU) between the University Kumasi and TeoG



During the visit of the board in Kumasi the subject Memorandum of Understanding got a new impulse again. During the conversations of the Vice Chancellor Prof. Obiri-Danso and our board we agreed to finalize this topic. Meanwhile Prof. Obiri-Danso and our board signed the Memorandum. In this MoU both parties arrange a common, privileged cooperation. Now nothing more is in the way for "Solutions Applied Together".

The German board



Wanted: Participants for the new project „Lean Hospital“

In the last visit of the German board in Techiman we discussed with the leader of the hospital in Techiman, Mr. Christopher Akanbobnaab, his vision of a “Lean Hospital”. Because I have already made organizational projects with a medical point of view, we decided to make a seminar via Skype with max. 5 participants from Ghana and 5 participants from Germany. Contents of the seminar are the creation of processes in hospitals with the method value stream mapping / value stream design. The aim of the seminar is that the participants can analyze processes in hospitals and optimize them. Then the skilled methods should be transformed in Techiman within a project in practice. The attendees with regular participation and accepted delivery of all exercises can get a certificate, issued by the association. Interest? Then send a E-Mail, including you skills to frank.neumann@teog.de

RG Rhein-Main makes itself known

The RG Rhein-Main, founded in 2017, was quite busy during the last couple of months to present Technology without borders in the area around Frankfurt. Therefore, we did a presentation at the Rotary Club Frankfurt/Main international, had a market stall at the Christmas market, visited the local committee of a Frankfurt district and gave a presentation at the Goethe University in Frankfurt. Here we could give a hands-on example of a development cooperation for students of political sciences and discuss the most crucial aspects of this complex topic. So, the RG Rhein-Main starts the new year with some new friends and interested parties and can hopefully release news from our project progresses soon!



Support for our AK IT in request

Because our association and the IT infrastructure required with it(thus) grows steadily, the expenditure also rises for the administration of our IT infrastructure.

You know yourself, e.g., a little with the subjects Mail server, LDAP, WordPress, etc. or you would like to enrich your IT knowledge about practise experience? Then support our AK IT – there are exciting challenges waiting! Contact please simply without obligations with ak.it@teog.de and get to know the members who allow our international cooperation and perhaps with your engagement!

Presently running and finalized projects:

www.teog.ngo

V.i.S.d.P. Dr.-Ing. Frank Neumann, Ina Reichmann

Technik ohne Grenzen e. V. - Richard-Strauß-Straße 38 - 91315 Höchststadt a. d. Aisch
Vorstand: Dr.-Ing. Frank Neumann (Vorsitzender), Dipl.-Ing. Franz Regler, Dipl.-Ing. Robert Schullan, cand. Ing.Nhat Nguyen, M.A. Melanie Bonitz, Dr.-Ing. Veronika Birk,
B.Eng. Martin Huber, M.Sc. Daniel Schaffert
Vereinsregister Fürth: VR 200 486 - Steuer Nr.: 216 / 111 / 00 865
Bankverbindung: Kreissparkasse Höchststadt a. d. Aisch IBAN: DE29763515600425038049 BIC: BYLADEM1HOS