

Editorial

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

each head of a project is faced with one question in the beginning of every project: "What are the most important steps and documents for realizing my project?" The first one is surely the project leader workshop, where all important steps are thought and trained. Everybody recognizes very quickly that we have only three important documents in our association beside our statutes and the operational arrangement: The project-sheet, the project-file and the budget-cash-up file. Which of these three documents is now the most important? After intensive reflecting the potential project leader will surely recognize that the project sheet is the most important one. But why? Within the project sheet, you can find all important data about the project on only one DIN A4 sheet. Based on this data the board decides about the realization of the project. By giving the project number, the board authorizes the project leader to realize the project on behalf of the association. Given by a current occurrence we want to point out that only with this official project number the head of the project is an official representative of the association. So he/she is allowed to realize self-controlled the project within the regulations of the association.

Your board

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

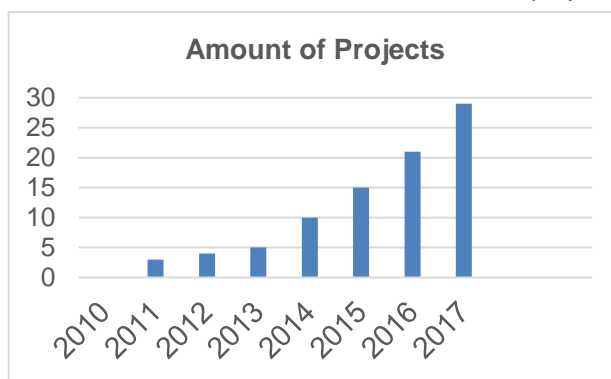
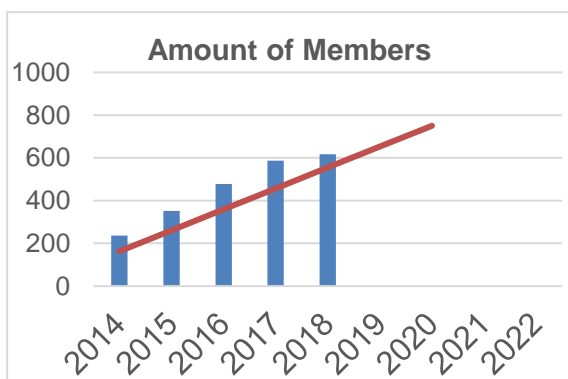
General assembly of Technik ohne Grenzen

This year's Annual General Meeting took place in the HTWK in Leipzig. 33 members came together and enjoyed, among other things, the framework program organized by Klaas and the RG Leipzig. They not only did receive important information about the association, but they also had the opportunity to network beyond their regional groups.

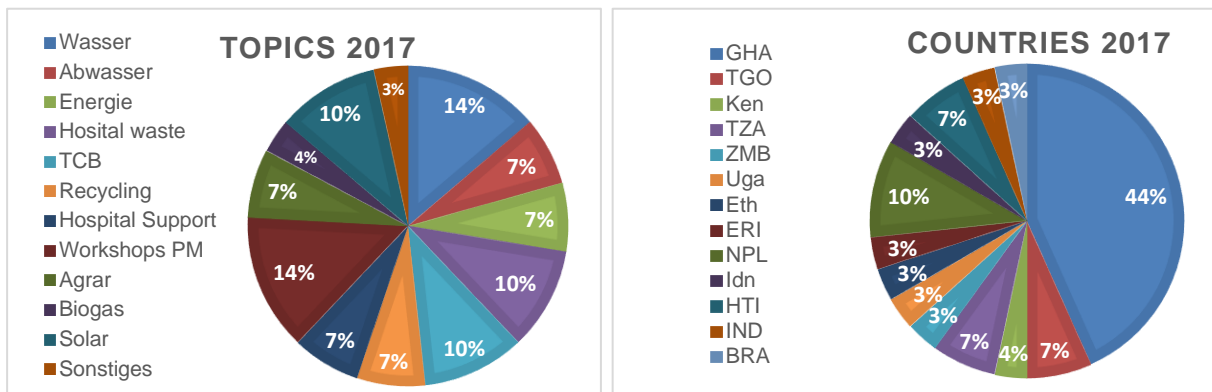


General Assembly in a lecture hall of the HTWK

After welcoming and determining the quorum as well as passing the minutes of the 2017 General Assembly, the Executive Board reported on the positive membership development (618 members as of 31.12.2017). This has given us a critical mass that goes hand in hand with a degree of awareness that causes us to see organic growth of members. However, the organizational expenses are growing accordingly. Along with membership development, of course, the number of projects



we manage every year is also increasing - see also www.teog.ngo (scroll down). On the website a world map impressively shows a large part of our worldwide projects. In 2017, we implemented 29 foreign assignments, two thirds of which took place in Africa.



Ghana and Nepal were the two main countries of operations through our close cooperation with the German Rotary Volunteer Doctors (GRVD).

At this point, the Executive Board expressed its emphatically gratitude to GRVD for the constructive and trustful cooperation.

The report of the treasurer contained the explicit request to all RGs to deliver the accounts to him at the latest 6 weeks after the beginning of a year. This year, once again, the annual statement of accounts was submitted far too late and thus the invoice verification could only be carried out at the last second. Many thanks at this point from the board to the treasurer and the auditors for their proven flexibility, which made the general meeting possible on the scheduled date.

The discharge of the treasurer and the executive committee took place then on suggestion of the cash auditors without dissenting votes and thus unanimously.

The subsequent re-election of the second board Franz Regler also took place without dissenting votes and thus also unanimously. Franz accepted the election and thanked for the confidence he had received.

The outlook for the association year 2018 included first the indication that the purpose of the main association, the provision of services in development cooperation, must come first. Topics such as the compensation of our carbon footprint and further intensifying the three-level concept in our reporting will need to be further developed, as well as the observance of the new General Data Protection Regulation (DSGVO). Here we are urgently looking for a member who will take over this function in the association. The outlook on the two projects, "GHA_50 - RecycleDown e-Waste!" and the project "Lean Hospital" formed the conclusion of the general meeting with the note that the general meeting is expected to take place in Rottenburg in 2019 (now confirmed by RG Rottenburg on 10th to 12th of May 2019).

Following the general meeting, Klaas reported on the cooperation with the Rotarian association "Water without Borders", the German branch of the Rotary Action Group WASRAG. Here are between the two associations for a long time at board level best Rotarian connections. For example, RG Leipzig is a privileged partner of WoG for water projects. The most important projects of the past were purely biological wastewater treatment plants for a hospital in Madagascar and an orphanage in Haiti (see also NL 16 IV and 17 II). Another joint project is the wastewater handbook, currently being developed by Verena Vedder, which will be available in the future as a planning tool for wastewater issues. All participants agreed that this cooperation with "Water without Borders" would be of great benefit to both organizations.

Melanie Stephan, Frank Neumann, Executive Board

Standardization of low-cost biogas plants in Brazil

The regional group of Araranguá, representing Technology without Borders (TwB) in Brazil was officially founded as association on the 20th April 2018 and started its first two projects.

Formed by teachers and students at the Federal University of Santa Catarina, the RG finally had their first meetings and started to organize itself in order to work effectively. The sectors are fundraising, project development, public relations and others. After its official foundation, the RG started its first two projects: The first one is a study and the implementation of a low cost bio digester in a small rural agricultural property, using cattle manure to produce biogas in order replace the use of liquefied petroleum gas (GLP). The technology implemented in Brazil uses only well-known components: Bricks, plastic piping and water reservoirs are commonly available in Brazilian construction material stores. The project started in 2017 and entered recently its final stage. Costs reduction for the farmer by substituting fossil energy with renewable, lowering CO2 emissions and the production of bio fertilizer that can be

used locally are the main aims for this certain project. Because of its standardized and low-cost design, neighboring farmers are already interested in the system. External partners are the public company for agricultural research and rural extension of Santa Catarina state (EPAGRI) which works with the farmers, local hardware stores for material and civil engineers for the construction phase.



The Container which will serve as meeting for TwB Brazil

The second project is the study and construction of a MakerSpace container. The container will serve as headquarters of TwB Brazil, offering a place for studies and development of new projects. Also, it can be used as a room for expositions of already developed solutions. The design was drafted with the support of local company partners.

Lutz Michaelis, LG Brazil

Incinerator Construction and Training of Locals in Nepal

In the middle of March, a team (Max, Lukas, and Anna-Lena) from the Erlangen regional group flew to Nepal in order to construct incinerators for hospital waste in three different places in the east of Kathmandu. Along with the construction of the incinerators, our main task was to train two employees of the startup company Blue Waste to Value (BW2V). Our team also visited two hospitals for whom TwB had built incinerators within the last year.

As one of our major project goals was to establish a lasting cooperation with locals, we met the staff of BW2V shortly after our arrival in Kathmandu. During our very first face-to-face meeting, we discussed the construction of the incinerators and planned our joint trip with Rasmina and Saugat.

We began construction in Manthali, a small town that had been visited by one of our project teams last year, and it was an amazing place to start. As stipulated, the foundation had been completed before our arrival, and our task was easy as all the materials needed for construction could be purchased in town. With the help of a new construction guideline that we had written before our departure from Erlangen, we were able to explain the technical functioning and chronological sequencing to Rasmina and Saugat. Finally, in cooperation with local workers, we were able to complete construction of the incinerator after only one week of work. Because of this, we were able to present the new waste system to the hospital staff ahead of schedule. We also provided more in-depth training concerning operation and maintenance to a group of nurses. Santosh, the caretaker of the hospital, was especially enthusiastic about the new incinerator.

Inspired by the success in Manthali, we traveled eagerly to Kattike Deurali. Our excitement quickly turned to disillusionment as we discovered that our next site was a very small mountain village with almost no access to materials and workers. Despite these setbacks, which necessitated multiple phone calls to the hospital owner, the Dhulikhel hospital, we were able to eventually complete the construction of an incinerator and to ensure that it was in perfect working condition. It was here that our collaboration with Rasmina and Saugat became particularly valuable, especially in regard to language and cultural barriers that could have prevented us from getting the help needed to complete our work.

At the last site, Baluwa, we handed responsibility over to BW2V and assumed an advisory function. During our stay there, a new hospital was built, making it difficult to get workers. Rasmina and Saugat again worked hard and successfully persuaded three laborers as well as three bricklayers to work on their day off, Saturday. Thus, we managed to complete our last waste system in a shorter amount of time than anticipated.

At all three of our construction sites, proper training in the incineration process was equally as important as collaboration with locals and proper construction of the incinerators. The training process involved not only instruction, but also a minimum of three trial burn tests of the incineration systems at each site. Proper execution of the incineration process is evidenced in both operating temperature and exhaust emissions. For the first time, our group was able to measure these emissions on project site. The exact evaluation of the measured data will be done within the next few weeks.



The team in front of the incinerator

Visits to the hospitals in Bahunipati (NPL_07) and Beni (NPL_08) clearly demonstrated that the condition of a waste treatment system is related to the operation and maintenance of the incinerator. Although the incinerator in Bahunipati was in very good condition, the incinerator in Beni was not. We immediately initiated repair work and reminded hospital personnel of the importance of proper maintenance.

In our final meeting with BW2V, we discussed our mutual experiences at the construction sites and our anticipation of further collaboration on future projects

Anna-Lena Treutlein, RG Erlangen

Generator maintenance in Ghanaian hospitals

After a successful implementation of the first project for generator maintenance in Ghanaian hospitals in September 2017 the follow up project started in April 2018. Two members of the Regional Group Erlangen of TwB evaluated different generator companies and assessed the situation in three hospitals.

The Ghanaian power grid is very unstable. To guarantee continuous power supply especially hospitals rely on emergency generators. They are necessary to fill the supply gap and therefore need to be maintained properly. On behalf of the German Rotary Volunteer Doctors (GRVD) we help to provide necessary information for the hospitals. Trustworthy technicians are hard to find. To assure professional assistance for the generators Maja Veigel und Paul Böhnke visited six generator companies and got personally in contact with local managers. Furthermore, the team evaluated the expertise, education and skills of the local technicians. We found promising companies which would be perfect partners for supporting the generators in our serviced hospitals.



Maja inspects the hospital's generator

After evaluating the companies three hospitals in the Volta region were visited. The hospitals in Dodi Paspase, Nkwanta and Chindiri are placed in the eastern parts of the country. The situation and current state of the hospitals was assessed for further projects. In addition, with the hospital technicians, an inventory system was introduced or renewed. The inventory system helps the technicians to gain a better overview about all the technical devices in the hospital and furthermore provides a basis for information about repairs and frequently occurring issues. Moreover all necessary pieces of information about the generators were gathered. Many problems of the generators were detected and documented. The given information is passed to the working group Hospital Support in Germany in order

to help to provide better support during the next project. Due to the given information preparatory tasks can be carried out and tools and spare parts can be ordered. Sincere thanks to all the GRVD who made this project possible. The link to the project is: https://www.teog.ngo/teog_project/generator-wartung-in-ghanaischen-krankenhaeusern-2/

Maja Veigel, RG Erlangen

Short Communications

Medical Mission Institute Würzburg meets TwB

Frank Neumann, Annika Fenn (Hospital Support) and Michelle Ahlers-Hesse (Waste) visited members of the Medical Mission Institute in Würzburg on the 18th April 2018. The meeting aimed at a first exchange between the parties for a possible fruitful cooperation in the future.

Dr. med. Sabine Gies, who is member and consultant of the Medical Mission Institute Würzburg, initiated a meeting with TwB to learn more about our organization and expertise. After a short introduction of both parties, the main dialog started. Dr. Gies' main focus was set on incinerators for hospitals and the related training for the staff, as their EFFO-Ebola-project in Senegal is currently facing some obstacles concerning waste management. Furthermore, Dr. Ochel and other members of the Mission Institute shared a few ideas for current and planned projects for which the expertise of the Hospital Support and Waste group of TwB could be very beneficial. Different aspects of the projects were evaluated concerning the realization and sustainability. Overall, was the meeting very informative for both sides and a mutual understanding and interest was set. With a very positive resonance, the first steps towards a fruitful cooperation were made.

Michelle Ahlers-Hesse, RG Erlangen

Toranam – Trees for Life won the Google Impact Challenge

The Project "Toranam" of the regional group Munich has won the Google-Impact-Challenge 2018 in the category "local project". With the so funded money we will be able to further support farmers in southern India and to encourage sustainable development there. Many thanks to all who voted for our project!

During a visit in February, the positive development of the first two Agroforestry (a special form of landuse aiming at an environmental friendly use of soil) plots on the demonstration farm could be marvelled at first hand. Thanks to the tropical climate and the endless care and providence of the site manager Sagar, the trees have developed magnificently and as of now in June, the first ones already fruit.

The design of pilot plots on the land of two smallholder farmers was another milestone. The two have agreed to start Agroforestry on their own land with plans and trees provided by Toranam to show how easily the benefits of this form of land use can be reaped. We are looking forward to the cooperation, to the next visit in July/ August and to Agroforestry gaining ground in Andhra Pradesh!

Franziska Weissörtel, RG München

Charity Run in Erlangen

With the second edition of its fundraiser run Technology without borders was able to outperform the benchmarks of last year. At perfect weather conditions 343 runners covered astonishing 2452 Miles. Local companies like Greenovative donated generously and now 3 of our projects will receive the collected money. The concerned projects are the construction of a biogas toilette in Haiti, the implementation of a knowledge box in Ghana and an incinerator for medical waste in Thailand.



We are especially proud that the major of Erlangen opened the 1000 Miles Run once again. We want to thank all our supporters and donors for this great event! Hopefully we are able to reproduce these years results in 2019. We are looking forward to see you there!

Andreas Vierling, RG Erlangen

Foto Exhibition in Hamburg

The Regional Group of Hamburg invites from the 2nd of July to the 28th of September to a photo exhibition within the Hamburg University of Technology. The beginning will be celebrated with a vernissage on Saturday the 7. July at 4pm in the foyer of the TU Hamburg wherefore we would like to warmly invite you. Together with the Arts Initiative of the Hamburg University of Technology we present the work

of us and our partner organizations, as well as our water project in Eritrea, on 50 large-sized pictures. We are looking forward to welcome You in Hamburg!

RG Hamburg

Hospital Support at the GRVD Membership Conference in Speyer, Germany

As part of our ongoing cooperation with the German Rotary Volunteer Doctors (GRVD) to support hospitals in Nepal and Ghana, Heiko Blumenschein and Arne Bruns of the working group Hospital Support participated in the yearly Membership Conference of the GRVD in Speyer. Our aim was to provide our long-time cooperation partner an overview about the progress we made in the last year in the hospitals supported by the GRVD.

After the presentation of a representative of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the regional Coordinators of the GRVD for both Nepal and Ghana, we presented the Maternity as well as our Generator Project implemented in the year 2017.

In order to make our cooperation more effective and fruitful we sat down with the leaders of the GRVD and discussed our next steps in Ghana and Nepal. We also talked about challenges facing our work in the near future.

We are looking forward to another great year!

Arne Bruns, RG Erlangen

Derzeitig laufende und abgeschlossene Projekte:

www.teog.ngo

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