EMPOWERING WOMEN IN TECHNOLOGY

Sote Tech Queens meeting in Voi, Kenya

As reported by the UN Women, achieving gender parity in economic participation will take more than 80 years if the change continues to happen at the current pace. According to the Women in Technology organization, women make up only 26 percent of the information-communication technology workforce in the Global North. In the Global South, the difference is even more strik-ing. The reasons for this imbalance include social and environmental fac-tors shaping girls' interest, and hence their achievements in ICT and STEM in general, but the responsibility lies also with school environment and the impact of the continuous bias. The bias is often unconscious and there-fore it will take a great effort from the society all around the world to eliminate negative stereotypes about girls' "innate" disinterest in and (dis)ability to understand ICT and sciences in general. Considering the fact that ICT and STEM field is currently the fastest developing field and the fact that STEM jobs belong to the high-est paying, greater focus needs to be paid on fighting the bias and helping create inclusive and gender-balanced work environment, and thus help

Sote Tech Queens organise presentations and trainings by interesting businesswomen, leaders and programmers.

fighting poverty and achieving equality around the world.

There have been various initiatives and NGOs working to encourage and support girls and women to improve their ICT and STEM skills in order to find employment or run their own business in the tech field. Moreover, also companies which want to balance their gender geography turn to more inclusive recruitment processes or targeted internships. One of such initiatives was created by the Sote Hub in Kenya. The Sote Hub is a start-up hub and co-working space which provides its members with a unique combination of office spaces, technological equipment and training venues. It creates the collaboration space that is nurturing collective idea brainstorming, best-practice sharing, and training sessions aimed at sustainable improvement of all incubated startups, as well as enhancement of individual skills of all registered members.

The very first achievement from this innovative co-working atmosphere in Sote Hub is represented by one of the first activities initiated by hub members – the establishment of **Sote Tech Queens** club. This education peer group unites female members of the hub and high school graduates with local university students in Voi town. With the aim of improving their own programming or more specifically coding skills, they organized initial coding session in February 2016. Since then, regular meetings on a weekly basis enable the members to narrow the skill gap compared to their peers and further prepare themselves for a successful entry into either academic field, job market or entrepreneurship scene.

The experience and know-how exchanges reach beyond the practice-sharing activities among local Voi members. Four representatives of the Sote Hub lately seized the international opportunity to broad-

en their knowledge base and enrich their business skills during an international visit in May this year. Itinerary of their ten-day visit in Slovakia was maximally booked with meetings in various Tech and Business Hubs, presentations and discussions at Slovak business academies in a partnership with Kenyan schools including even a valuable networking opportunity during the CEE Corporate Social Responsibility Summit in Bratislava.

A positive experience of two ladies Ms. Elizabeth Njoki and Ms. Lucia Muthoni, who are in charge of the Sote Tech Queens club and are currently starting a company called Redecor, could only be expressed by one of the favorite quotations of Lucia: *"Opportunity is no-where, unless is now here."* As Lucia says, the success in life is the function of attitude and constant search for improvement opportunities. This exchange visit was also a chance to incorporate some well-functioning

business concepts from Slovak hubs and co-working places into their own persistently developing startup Redecor, as well as for the Sote Hub in general. Meetings in five different hubs across Slovakia were rich in discussions about technology, 3D printing, software development and business architecture; they covered the areas from business idea origination through market research & competitive analysis followed by strategy crafting. Topics focusing on selection of proper communication channels for young population nowadays, social media usage, and talks about quality of customer service were very frequent. The customer acquisition and retention issues were of special importance for these recently established startups. The girls were to apply the newly-acquired skills upon their arrival to Voi in Kenya, and use the know-how to further train girls at the Sote Tech Queens and young people at 12 project schools.

Elizabeth and Lucia are both ambitious young ladies with a clear vision of their future career. Lucia, as the Secretary of Redecor Company, has been active in several roles. She participates in community outreach development at the Sote Hub, and she is also co-founder and the lead-er of the Sote Tech Queens club. Due to her passion for science she quickly became perceived as a "geek". According to her personal experience: *"For a long time coding, or tech in general, has been deemed as a man-issue."* Changing this outdated mindset and inculcation of a coding culture among ladies, is one of her professional as well as personal goals. Elizabeth, a founder of Redecor is closely co-operating with Lucia, even though her background and professional aspirations are aimed at completely different area. She adores all different kinds of crafts and arts, and she is also active in journalism, communication and public relations. Elizabeth believes that continuous work with high school graduates in interactive and intensive learning sessions as those at the Sote Tech Queens club, helps solve the shortage of technical and business skills in Kenya and raises the generation that will change country's future.

Despite the differences between the Kenyan and the Slovak business environment, many lessons can be shared and learnt from each other. For instance, the importance of proper funding that enables the viability and sustainable growth of startups was underpinned during the session of 5-minute selling pitches which took place in the Slovak Impact Hub in Bratislava. In order to foster the business, one needs to be able to seize any funding opportunity and find relevant investors. Considering the customer side of the business, Lucy was particularly inspired by way of raising awareness and increasing the popularity of technical startups. This was achieved by organizing 48-hour long coding "marathon" – hackathon with specific coding challenge not only for professionals but also for IT enthusiasts and the beginners. Well-established member base of this startup and consequently the fees charged for services could in the near future become the source of profit generation.

Only a short-term implementation of new ideas would be however ineffective without a clear vision of a startup and ambitiously set targets. Therefore, Lucia's devotion to work is determined by her obvious aim for the future – to transform the Sote Tech Queens into the most attractive girl initiative in the ICT field in Kenya.

<div align="right">

Eliška Čepcová
Pontis Foundation volunteer

and Ivana Uličná
programme coordinator

</div>

INTERVIEW
Lucia Muthoni: Empowering Women in Technology for the Better World

What brought you to the idea of pursuing career in ICT? And how did you become part of the Sote Hub?

Ever since I was young I had always viewed computers as a fascinating thing. I always had the desire to know more about ICT and sometimes I would even dream of codes running up and down at the monitor. So it happened that the Sote ICT project was introduced to our high school while I was still in school and I saw it as a dream come true. I joined the club and I even did not know that it would lead me exactly where I have been yearning for. Later, I was chosen as the student president of the Sote ICT in Taita Taveta and that's when I learnt that I also have leadership skills. Based on that, the Sote Hub took me in their Community and School Outreach Co-ordinator.

What are your main activities in this role?

My main activities at the Sote HUB are managing our public relations sites, organising outreaches, running the company's blog site and sometimes also performing secretarial duties. Apart from that, I also run an all ladies group called the Sote Tech Queens which is aimed at empowering women in technology. Part of my job is to attend various activities, some hosted by the county government, others by different organisations. Recently, I attended an event supported by Microsoft. The whole event was aimed at empowering the girl child to take up tech courses at university level. This is related to the Sote Tech Queens and so I perceived it as an opportunity to meet prosperous women in IT and to networking. For the most of the time we focus on the youth, especially high school graduates from the Sote ICT schools and university

Lucia Muthoni, Sote Tech Queens Founder and Sote Hub PR and Outreach Coordinator

which there are some already making a profit, such as Rogim designs, a creative agency. It was them who created the Sote Hub's website. Just to mention another example, Recycle Afrika startup deals with recycling electronic waste to functional materials. Even though Recycle Afrika is still at the prototype stage, it has a vision of a green eco-friendly world. The interesting fact is that all these startups were created by the Sote ICT's high school graduates themselves.

You are also doing trainings at schools in Taita Taveta. As a student, you yourself were a part of this project. What progress or achievements have you seen over the years?

At the beginning, before the project was even introduced, I had no idea that I had leadership skills. Working on the project has made me grow more mature in terms of business and decision-making. It has helped me to see the potential within me and also in other people. I have achieved many things through the project starting with Recycle Afrika which is a start-up aimed at reducing electronic waste accumulation problem.

students, because we believe that the future lies in their hands.

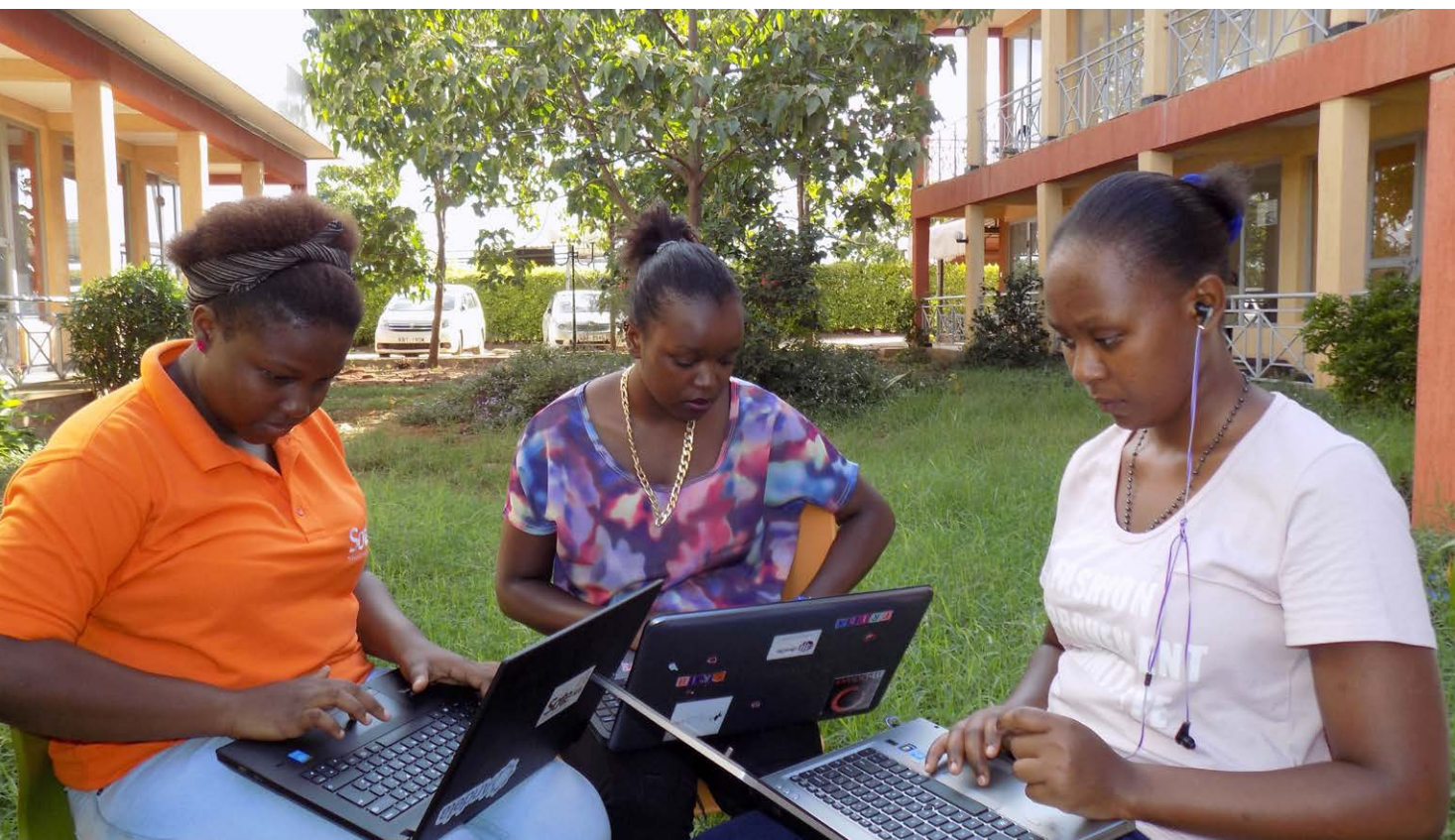**What are the main goals of the Sote Hub as an organization?**

The Sote Hub's main goal is to provide an open space for young innovators, startup companies, and the community as such to think about the problems and come up with suitable and sustainable local solutions. The Sote Hub usually hosts diverse trainings based on the different business sectors, for instance, design thinking and business plan trainings. Various different organisations are also invited to analytically criticise startup ideas. There are about fifteen startups at the Sote Hub from

Girls from Sote Tech Queens also learn coding in their free time.

You mentioned the group called Sote Tech Queens aimed at empowering more women in technology. Could you tell us bit more about it?

The Sote Tech Queens organise women-empowering events. We invite successful women from the country to come and speak to the young ones. We also hold coding sessions where female university students dealing with IT train girls from high schools. So far, we have managed to host two events but have several others in plan. Some of the events take place at the hub and some at schools.

The students from university volunteer as they also gain experience in the field. We have managed to reach up to fifty high school students through these events already. We believe such events will motivate the high school girls to want to pursue careers in technology.

And what motivates you to carry out all these activities?

The future motivates me. I envision a world where there are more women in technology and in leadership positions. I believe that perspective women have a better insight in problem-solving thus their being in leadership positions may enhance better choices. Also, over the years, IT has always been viewed as a men-dominated sector leaving the ladies behind, so with this program we are able to empower young girls to take up IT-related courses. This means that we will have more female programmers, coders, and even more companies run by women.

Jana Desiatniková
project coordinator

INTERVIEW:
Petra Kotuliakova: "Information technologies create great industry – where everybody can find self-realization, their own direction and specialization, in which they would be successful and beneficial for others as well. Yes, thanks to IT, you can even save the world."

For quite a few years already, **Petra Kotuliakova** has been successfully raising awareness among young women in Slovakia about the IT sector. With her very own unlimited passion for innovation, information technologies and informatics, she promotes education and career opportunities in IT area, with special attention paid towards women. In the past, Petra was involved in communication and public relations, while working for the Faculty of Informatics and Information Technology at the Slovak University of Technologies. At that time (2012), the number of girls at the IT Faculty hardly amounted to 3 % - 5 % of the total number of students. On the contrary, the shortage of skilled professionals on labor market in IT sector, not only in Slovakia, was permanently on rise. Particularly alarming was the significant lack of women developing their careers in IT. These circumstances gave rise to a unique initiative led by a group of women promoters of IT among young generation called *"Aj Ty v IT"*. The name of this initiative itself, "You also in IT", underpins the fundamental principle that literally anybody could leverage the opportunity of becoming an IT literate, regardless of gender, age, etc. The further development of own IT skillset provides career opportunities for women in numerous companies, ranging from start-ups to corporations across wide spectrum of industries. Since its establishment, the initiative rapidly extended its presence in other cities and universities across Slovakia, broadening their base of followers among young Slovak girls.

Petra Kotuliaková
(Photo: Martina Kusovská)

Why did you establish Aj ty v IT and what was your very first experience?

The idea of working with the population of girls at high schools, with the aim of increasing their interest in information technologies, was simply our reaction to an extremely low proportion of girls studying IT in Slovakia (approximately 5 %). Moreover, we have perceived steadily increasing demand for qualified IT specialists but also an increasing interest in diversity at workplace, especially in IT teams.

Our screening of demand among high schools quickly revealed that the interest in IT specialization among girls is present, however the opportunities for them, to broaden their knowledge and improve their skills, are virtually non-existing in their local environment. This fact became surprisingly evident already with the very first workshop which took place in the capital city of Slovakia open for public registration – and was not participated only by the capital's citizens but by girls from places more than 4-hour-long driving distance. Since then, we have orga-

nized workshops, debates, lectures at high schools and universities in various regions of Slovakia, and we communicate with girls also using virtual channels – our website, our new blog, videos and stories of successful IT specialists as well as girls currently studying IT.

What is the mission of Aj ty v IT? What are the goals you would like to achieve in the near future?

Building upon our own experience, regrettably we feel that the Slovak society is still nurturing the stereotype of male dominancy in IT sector. Despite the fact that the level of knowledge among high school girls in subjects such as Mathematics or Informatics is fairly comparable to the knowledge level of high school boys, the belief that only men could be successful in technical roles has still a great impact on the number of girl applicants for IT studies. A woman studying IT seems to be perceived in two extreme ways. Either as woman of unique bravery and stamina, or literally as a "freak". She is perceived undoubtedly as a deviation from standard. Our mission is therefore to gradually build and develop the interest among the young generation of women for education and careers in information technology sectors.

The short term target is to increase the percentage of female presence at IT faculties in Slovakia up to 10 %. The goal set for the future is to start with building of the awareness among girls already in early stages of their education – at elementary schools. With this approach we would like to gradually achieve the share of female IT students reaching 20 % - 30 %.

What institutions, according to your own experience, are the major contributors fostering the improvement in this area?

Government and education system

Our team operates within limited resources that constrain the scope of our activities. Therefore we are currently able to serve only certain number of high schools across Slovakia, excluding and disadvantaging the rest which are interested in such cooperation as well. These limitations are of high concern for us because by this approach we might be losing access to many talented girls in the high school population, and

The project Aj Ty v IT aims to encourage girls to study informatics and get employment in this field. (Archive of Aj Ty v IT)

Girls from Aj Ty v IT with their certificates. (Archive of Aj Ty v IT)

consequently we deplete the IT population of technical experts or outstanding IT developers. The increased support from the government would enable us to tackle the issue of the lack of women in IT in a more conceptual and sustainable manner. Furthermore, we feel escalating urge for the transformation of the education process and modification of the curriculum of Informatics and related subjects at high schools. Unfortunately, even today we receive feedbacks from discouraged girls that are resistant towards IT specialization because they experienced it during high school studies only in a form of memorizing theoretical concepts without a chance to employ it in practice, in areas of their own interest. The reason is not always in the approach of the pedagogues. The problem is of course more complex, related to high workload of professors, and the lack of a system for constant and high quality development of their own IT knowledge base.

Companies

The interest of the companies often lies in the short-term gain rather than investment that yields its return at some day in the future. The same is valid for the IT labor market and the demand from the side of companies. They are obviously in significant insufficiency of employees, often claiming that they need experienced workers right now. On the other hand, students can currently apply for a really insufficient number of traineeships or internships, and therefore have limited chances to gain the required practice. This vicious circle of

Girls from Aj Ty v IT have an opportunity to attend IT trainings and workshops. (Archive of Aj Ty v IT)

unexperienced labor force versus the shortage of opportunities for students to gain experience might be broken by the increased readiness of companies to devote their resources to the development of young generation. The training of IT students at company premises may be costly since it requires the capacity (time and effort) of the IT specialists of that company. However, the inability of the company to hire relevant employees might, at some point in the future, increase the costs of that company exponentially (in comparison to the initial cost of traineeship).

Despite the situation and especially as a result of enthusiasm and dedication for education of women in IT, we managed, with the help of some IT pioneers working for these companies, to established co-operations with several companies in Slovakia. Recently, we have completed one-year-long training program for five girls who have been improving their skills in photo editing, video editing and animating during 3-hour sessions on a weekly basis. We are truly grateful for that kind of long-term and content-rich co-operations because their positive impact on girls' motivation and determination is significant.

IT enthusiasts and high school representatives

While the strategic solution for the women IT education might be more dependent on the government regulations or employers' approach towards young generation, the execution of particular projects is often determined by the actions and willingness of individuals from among the high school teachers and IT speakers. The content of the lectures and workshops delivered by **Aj Ty v IT** *is always build through the creative process of communication between teachers and volunteering IT speakers. Teachers, on one side, request that the specific topics are relevant to their high school content or in line with the particular interests of their students. IT speakers, on the other side, supply the content which they believe corresponds to the current needs of the IT sector and will be relevant for the future IT workforce.*

Eliška Čepcová
Pontis Foundation volunteer

EU Presidency Project for the Slovak EU Presidency 2016

The Presidency Digest is issued under the auspices of the Slovak Presidency in the Council of the European Union, funded by the European Commission and co-financed by SlovakAid. The project is implemented by the Slovak NGDO Platform in a close cooperation with the Platform members during the Slovak Presidency in the Council of the European Union. The Objective of the Project is to strengthen the political support of the key Slovak development actors for the implementation of the Sustainable Development Goals at the Slovak as well as EU levels, ensuring policy coherence for development and contribute to an increased understanding of the Slovak public on the global interconnectedness in general, and to their readiness to act as globally responsible consumers in particular. This is achieved through various activities aimed to the decision makers and other policy actors as well as to civil society actors, academia, media, multipliers and general public.