Newsletter about Lithuanian-Swiss Cooperation Programme No. 8

LITHUANIAN - SWISS
COOPERATION PROGRAMME

Better-Quality Services For People With Disabilities

The Lithuanian state policies when it comes to people with disabilities are critical in all aspects of social life – these people are isolated from the education system and job market, access to health services is not ensured for them, and their physical environment is not adapted to fit their needs... In an effort to improve the existing situation, the Lithuanian Association of People with Disabilities implemented a year-and-a-half-long project to strengthen its human capabilities and material assets and to offer better-quality services and aid for people with disabilities.

Lithuanian Association of People with Disabilities's photo

One of the biggest problems that disabled people encounter is unsuitable or inaccessible environments, including high doorsteps, pedestrian crosswalks with pavement curbs, apartment blocks without elevators, and inaccessible schools or public institutions. According to Ms. Rasa Kavaliauskaitė, President of the Lithuanian Association of People with Disabilities (LAPD), these and other disadvantages experienced by disabled people who leave their homes often prevent them from spending time in public.

"It is not the disability itself that disables us, but our environment and society's still-unfavourable opinion," explained Ms. Kavaliauskaitė. "Many problems are hidden in the education and development system. Due to inconvenient school infrastructure and a lack of specialists, disabled children must often choose to be educated at home. In this way, they are isolated from their peers. The disabled people's loved ones encounter

The Lithuanian-Swiss Cooperation Programme funds five areas:

Improving perinatal and neonatal healthcare
27 hospitals

Introduction of energy efficient technologies in to hospitals, including the modernisation of heating, water-supply, ventilation and air conditioning systems
24 hospitals

Fundamental research development
11 scientific projects
9 Institutional partnership projects and a Scholarship fund

Supporting the activities of Lithuanian NGOs by strengthening community organisations and their cooperation with local authorities
97 subprojects

Modernisation of the judicial system
1 project

Lithuanian Association of People with Disabilities's photo

a lack of services in their communities, and many older people, who are without families and are no longer able to live independently, live in care institutions that are far removed from the centres of their cities or regions. Therefore, society rarely sees people with disabilities and this forms a very strong divide. Integrational projects are under way and the situation is gradually improving, but not as quickly as we would like."

With the funds of the Republic of Lithuania and the Swiss Confederation Cooperation Programme, the LAPD implemented the subproject "Strengthening of the Lithuanian Association of People with Disabilities' Human Capabilities and Material Assets Through the Application of Progressive Methods". Its purpose was to increase professionalism of the specialists working in the Association and its associated organisations, prepare new staff members, improve service and fund-raising processes, and to implement new services. According to Ms. Kavaliauskaitė, a majority of the subproject's activities were meant for the development of the competencies of people working with the disabled so that they had the necessary skills to offer consultations and services.

Competent Disabled People will Help Job Seekers

Employment of disabled people begins with professional rehabilitation. Currently, 13 centres in Lithuania provide such services and the state has provided significant funds for these services. However, though about 500 disabled people receive professional rehabilitation every year, the number of the disabled unemployed has reached 10,000.

"The LAPD unites several public institutions and 19 non-governmental organisations that work with disabled people and provide them with regional services. One of the sub-project's objectives was to suitably prepare employment consultants so that they could help people with disabilities integrate into the job market. There is a lot to say about the employment problems. For example, certain types of disabilities (i.e. psychological or mental disabilities) are especially stigmatised and it is practically impossible for such people to find a job," said the head of the LAPD with disappointment.

Based on statistical data for 2014, the majority – 57.4% – of 48,000 employed disabled people in Lithuania had "lighter" disabilities (45–55% work capacity). However, only 1.9% of the people with significant disabilities (0–25% work capacity) entered the job market. People with disabilities have a hard time integrating into the job market for various reasons: as many as 76% of employers have no knowledge about the capabilities of

disabled people and do not believe that they could perform their work well or that their existing work or social skills would not hinder their work.

During the implementation of 5 educational programmes as part of the sub-project, a group of 30 disabled people was prepared as employment consultants. They help disabled individuals integrate into the job market by consulting on various job market and supply questions not just with disabled individuals, but with potential employers and the staff teams as well. According to the head of the LAPD, their greatest wish for the future would be to establish an employment help centre for the disabled.

Excel Spreadsheets Were Replaced by a New Database

During the implementation of the subproject, the LAPD's material assets were improved as well. The necessary equipment the centre received improved the quality of the management and implementation of this and other projects. The material assets in 16 Lithuanian cities were improved – old computers at the organisations united by the LAPD were replaced with the new ones and a service recipient database was also installed.

"Every year the LAPD's associated members submit requests to their municipal governments to implement projects that provide the community social rehabilitation services for the disabled and receive funds to provide their services and to organise activities for the disabled. The biggest problem was keeping track of all of the service recipients and the number of services and preparing reports, so many people used Excel spreadsheets. There were even some who kept track of their services using pencils. The social service database that was created for and installed at the LAPD's divisions was very necessary and has made our work much easier," Ms. Kavaliauskaitė said joyfully.

According to the President of the Association, the renewed material assets will allow the organisation to initiate the occurrence of services maximally adapted to disabled people's needs and to strive for a higher quality of customer service. The data, once collected, systematised, summarised and presented in statistical tables, will be used to improve the quality of services provided, prepare new strategies and implement programmes.

"The subproject, the aim of which was to strengthen the organisation's capacities, was 100% successful and its benefits were enormous: we gained a great deal of knowledge and competencies. Now the disabled people who join the LAPD can place even more trust in us," assured Ms. Kavaliauskaitė. "The subproject's activities strengthened not just these non-governmental organisations' material assets,

Lithuanian Association of People with Disabilities's photo

but their human resources as well. The organisations' leaders and specialists gained new skills and experience in representing the interests of the disabled – a socially vulnerable part of society. This will reduce these individuals' social isolation by creating the conditions for them to gain and provide information as well as participate in the job market and in socio-cultural life."

The subproject "Strengthening of the Lithuanian Association of People with Disabilities' Human Capabilities and Material Assets Through the Application of Progressive Methods" was implemented over 18 months in 2013–2014 according to the Non-Governmental Organisation Subsidy Plan of the Lithuanian-Swiss Cooperation Programme's. The sub-project's total value was EUR 81,036.

2006.02.27 the European Commission and the Swiss Confederation signed a Memorandum of Understanding.

2007.12.20 the Republic of Lithuania and the Swiss Confederation signed a bilateral Framework Agreement and created the Lithuanian-Swiss Cooperation Programme.

2017.06.14 All project agreements under the Lithuanian-Swiss Cooperation Programme were signed; funds were allocated to Lithuania and must be used by 14/06/17.

Physicians' Updated Knowledge and Teamwork Are Saving Lives

Aurelija Baniulaitienė's photo from the press conference

At the beginning of the year the Lithuanian press reported on the success story of a 31-year-old resident of Marijampolė whose life was saved after she experienced heavy post-partum bleeding. The physicians at Marijampolė Hospital still remember this incident with joy and say that the success would not have been guaranteed without teamwork and excellently coordinated actions of the entire staff.

Statistically, 3–6% of childbirths become complicated with heavy bleeding due to various causes, and this is still one of the most frequent causes of death for women during childbirth in Lithuania. In such cases, the physicians' reactions, speed and coordination are all especially important.

The young resident of Marijampolė felt well during her second pregnancy, she was healthy and had no complaints. Her delivery also went smoothly, and she gave birth to a son weighing more than 4 kg. However, about half an hour after the delivery, the first signs of heavy bleeding began to appear.

According to Ms. Rūta Markelienė, Chief Nursing Administrator at the Department of Obstetrics of Marijampolė Hospital: "Everyone theoretically knows what can and must be done in such cases. But such cases, thank God, are rare, so we rarely have to apply our practical skills in managing such situations. In that case, we were greatly helped by the fact that 25 of our hospital's specialists working with pregnant women and women in labour had improved their qualifications in modern training sessions in 2015. The information they received helped us make the right choices and work very harmoniously with our colleagues who had arrived from Kaunas".

Both the modern training and the preparation of 70 new scientifically based methods to make physicians' jobs easier were financed under the Lithuanian-Swiss Cooperation Programme. As part of the Programme "Improvement of Perinatal and Neonatal Health Care Services in Lithuania", EUR 1,822,289 were used for the programme, the amount of EUR 437,398,63 of which was set aside for the development of unique methods prepared by specialists and coordinated with universities. This programme is implemented in 27 Lithuanian hospitals that provide obstetric and neonatal services. According to Ms. Markelienė, the fact that new, scientifically based methods were presented to the country's hospitals and that physicians had the opportunity to update their knowledge and learn how to work with coordination in difficult situations led to the miracle at Marijampolė Hospital.

"There are many different types of training and we are constantly improving our qualification, but the most important thing here was probably the fact that we ourselves took decisive actions and knew exactly what we had to do. When specialists arrived from Kaunas Clinics, they were immediately able to smoothly incorporate themselves into our work. We didn't have to explain what we were doing or what was happening because, after learning to work with the same methods, we were all thinking and acting predictably and identically," said the Chief Nursing Administrator of the Department of Obstetrics.

The woman in labour could not have been saved without the timely beginning of a blood transfusion. About 21 litres of blood and its components were transfused. This was the blood of about 30 donors. In addition, the situation was made more complicated by the patient's rare blood group, so the required blood products had to be received quickly from the National Blood Centre.

"When you think about it, everything is important: the medical equipment, specialists' competencies, decisive actions. But in this case, I would primarily emphasise our teamwork in a difficult situation and the ability to coordinate our actions and decisions with all the specialists. There was really a feeling that we were all working in unison," said Ms. Markelienė, in explaining the benefits of the staff training.

According to Ms. Rūta Markelienė, physicians learn about the principles of the arrival of a new life into this world and these principles do not change. However, the miracle of life is very fragile. She was happy that the modernisation of technology and thorough research increased the number of opportunities to save lives. This is why "the Swiss Confederation's support for our training contributed significantly to helping infants be born healthy in Lithuania and helping their mothers feel well," Ms. Markelienė summed up.

Inventor of Revolutionary Technology Mr A. Ragauskas:

"A Clinical Study Carried Out in Switzerland Guaranteed Success for Us"

Arminas Ragauskas uses an ultrasound device (European Patent Office's photo)

Around 2.5 million people suffer brain injuries in Europe every year, and 75 thousand of such cases result in death. One of key methods for avoiding an irreparable disaster is detecting increased intracranial pressure. However, the current method for measuring intracranial pressure is based on an invasive procedure, i.e. surgical implantation of sensors into human brain, and can be invoked only in certain cases. A group of scientists at Kaunas University of Technology had undertaken to address this issue and invented a new technology for measuring intracranial pressure.

"To put it figuratively, if you have experienced a headache, it is highly unlikely that you would wish to have a probe implanted into your brain in order to have the causes of the disorder established. Our invention lets search for the causes of a potential disorder using a reliable and non-invasive method that is safe to the patient," says professor Arminas Ragauskas of Kaunas University of Technology whose team of scientists have developed and tested, in partnership with the Swiss scientists, a non-invasive intracranial pressure meter, which is called a revolutionary technology in clinical practice.

As part of the project called "Scientific Research and Development of Innovative Evidence Based Non-Invasive Brain Diagnostic and Monitoring Solutions for Neurological and TBI Patients" under the programme "Research and Development" within the framework of the Lithuanian-Swiss Cooperation Programme, scientists aimed at proving that neurosurgical equipment developed in Lithuania and the methodology used are sufficiently accurate and precise.

"At the time we submitted the project for financial funding, we already had a prototype that had to be validated on the basis of the standards and methodology of evidence-based medicine. Thus, the funding from the Lithuanian-Swiss Cooperation Programme was needed for us to carry out all procedures in line with the requirements and standards of the high-end trials that would open the way for our product to global markets, – tells the professor. – Despite the early scepticism, we have managed to find reliable partners, i.e. the Neurosurgical Clinic of the Swiss Canton of Aarau, and carry out trials on patients. Such studies are subject to strict audits and monitoring in the country with the highest medical and ethical standards. Namely here we managed to successfully and completely impartially answer the questions on what the accuracy, precision, sensitivity, specificity and other parameters of our devices relevant in medicine were."

To ascertain the accuracy of the devices developed and the reliability of the results obtained, scientists had to work with patients using the existing invasive technologies for measuring intracranial pressure and the recently developed non-invasive ones simultaneously and compare the results obtained. According to Mr A. Ragauskas, standards of evidence-based medicine require very strict compliance with the framework of

The device to measure intracranial pressure and blood flow (European Patent Office's photo)

methodological tests; this ensures not only that the information on the results is published in the most famous science journals globally later, but also opens all opportunities for commercialisation of the technology.

The expectations have more than proven. The project, which had been allocated more than EUR 600 thousand from the Lithuanian-Swiss Cooperation Programme and the Lithuanian budget, was successful in all respects. The results substantiating the reliability of the technology were published in prestigious science journals; they received an interest from NASA researchers and earned a nomination for the European Inventor Award to Mr A. Ragauskas.

"Namely the results of the high-end clinical study carried out in Switzerland open the ways for us to the US market which is full of strict regulations. At present, we are in the process of submitting the results of the audited clinical study to the US Food and Drugs Administration in order to obtain an authorisation to undertake work with patients in America on a commercial basis. We have had this authorisation in Europe since 2014. The doors to our invention were opened in a quick and willing manner. Thus, now we strive for entering the US market. The study carried out in Switzerland is of great assistance to this end," tells the professor talking about the entry of the non-invasive intracranial pressure meter to the market.

"The devices developed by Mr A. Ragauskas and his team allow measuring intracranial pressure without any invasion whatsoever; this was impossible up until now. This gives an opportunity for physicians to start treatment that can save a patient's life in a timely manner, – said Mr Benoit Battistelli, the President of the European Patent Office, presenting the nominees for the European Inventor Awards. – These devices with the modus operandi based on the Doppler wavelength effect are an excellent example of how a fundamental physical phenomenon can develop an innovative patented technology."

The highly successful cooperation launched with the Swiss scientists is ongoing. "Partners from Switzerland have already generated a multitude of ideas for new joint projects that would help solve serious avant-garde medical issues. For instance, one of the emerging streamlines for the potential application of the new technology is diagnosis and treatment of glaucoma. Trials have commenced and the results are encouraging. Thus, we will develop this area of research in Switzerland with another group of patients," a world-renowned scientist shared his future plans.

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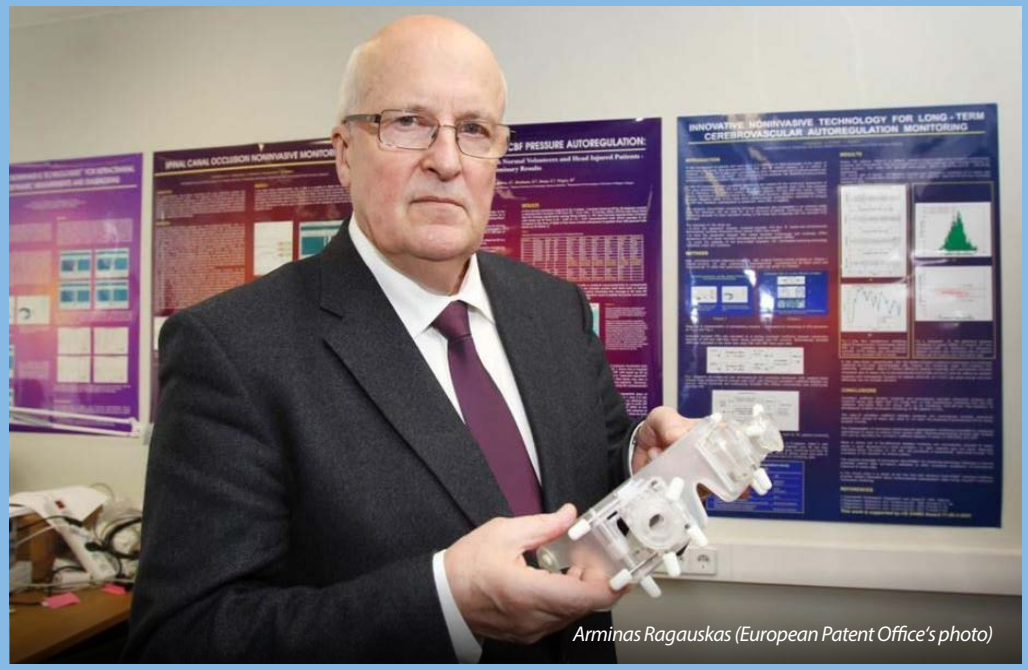
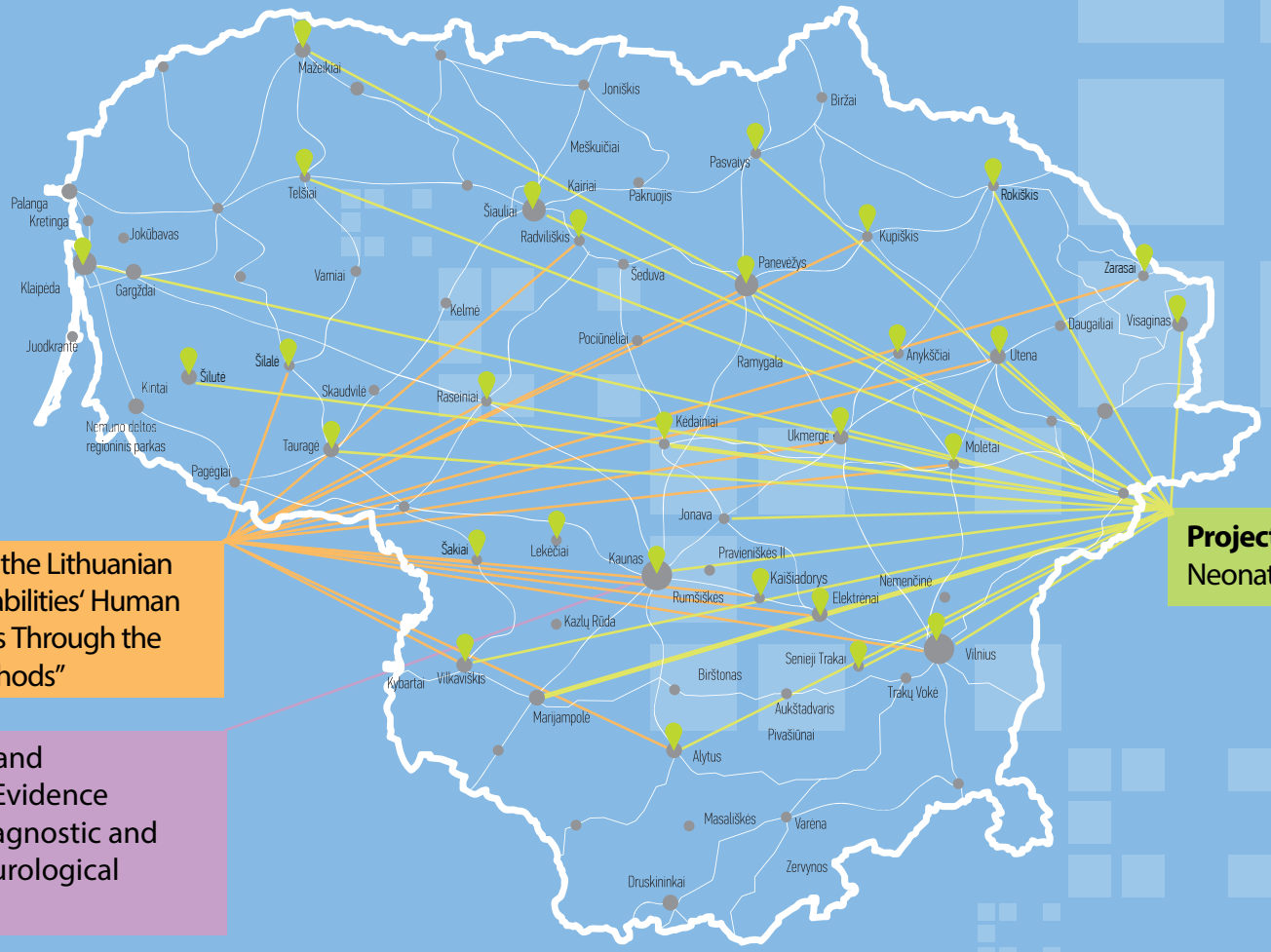


Arminas Ragauskas (European Patent Office's photo)

Lithuanian-Swiss Cooperation Programme project map



Subproject "Strengthening of the Lithuanian Association of People with Disabilities' Human Capabilities and Material Assets Through the Application of Progressive Methods"

Project "Scientific Research and Development of Innovative Evidence Based Non-Invasive Brain Diagnostic and Monitoring Solutions for Neurological and TBI Patients"

Project "Improvement of Perinatal and Neonatal Health Care Services in Lithuania"

Swiss contribution - for real and targeted works

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