

ANNUAL REPORT 2022

## THE DARIU FOUNDATION

we love coding

# YEARS OF EMPOWERMENT

D'GITAL LITERACY INITIATIV





A record number of over 400,000 girls and boys in Vietnam, Malaysia and Bhutan have successfully completed digital literacy training programs, allowing them to gain experience in critical and creative thinking alongside basic coding school skills - positive learnings that will stay with them for life.

Besides being our anniversary year, 2022 was also the kick-off for our new strategy with the two objectives "Geographic Expansion" and the "IMPOSSIBLE" project. In Malaysia, the Rolf Schnyder Foundation launched a preschool

## Letter **From the President**

#### Dear Friends,

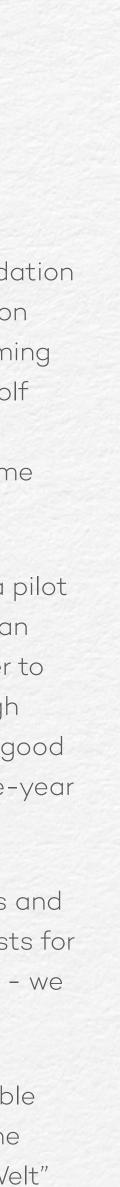
Last year was a great year in all respects. We were able to celebrate our 20th birthday in Switzerland and Vietnam with our partners, friends, and employees. Moreover, with the end of the Covid pandemic, we succeeded in redirecting all our energy on developing our activities and implementing our ambitious strategy. The results are impressive, and I would like to take this opportunity to thank our employees, friends, supporters, and strategic partners.

project in collaboration with The Dariu Foundation to teach young children in Sarawak, a state on the island of Borneo, the basics of programming in a fun way. Founder and president of the Rolf Schnyder Foundation is Chai Schnyder, who recently joined our foundation board: Welcome Chai!

In the Kingdom of Bhutan, we have started a pilot project with the VTOB Foundation. VTOB is an association of young teachers who volunteer to provide coding lessons in secondary and high schools. The pilot project has delivered very good results, so in 2023 we will start our first three-year program.

Further countries we are evaluating are Laos and Cambodia, yet we have also received requests for cooperation from South America and Africa - we will see what the coming months hold.

Speaking of partnerships: In 2022 we were able to establish a long-term cooperation with the German development agency "Brot für die Welt"





for our projects in Vietnam, on the idea to extend this partnership to other countries.

In Laos, we will be working with Swisscontact, a leading Swiss organization in the implementation of international development projects and we will be able to benefit from their local infrastructure and know how.

Our second strategic goal is "IMPOSSIBLE", which we outlined last year as: "We invite the most talented kids from our digital literacy initiative to our code clubs, where they can develop and execute projects - and we want to give them the tools to become entrepreneurs". In 2022, our team in Vietnam worked with local universities to develop a course in entrepreneurship with the encouraging result that four Vietnamese universities have adopted our programs and now offer them to their students. The same universities, as well as highschools have furthermore approached us to launch and run Code Clubs on their premises, a request we will comply within the upcoming weeks and months.

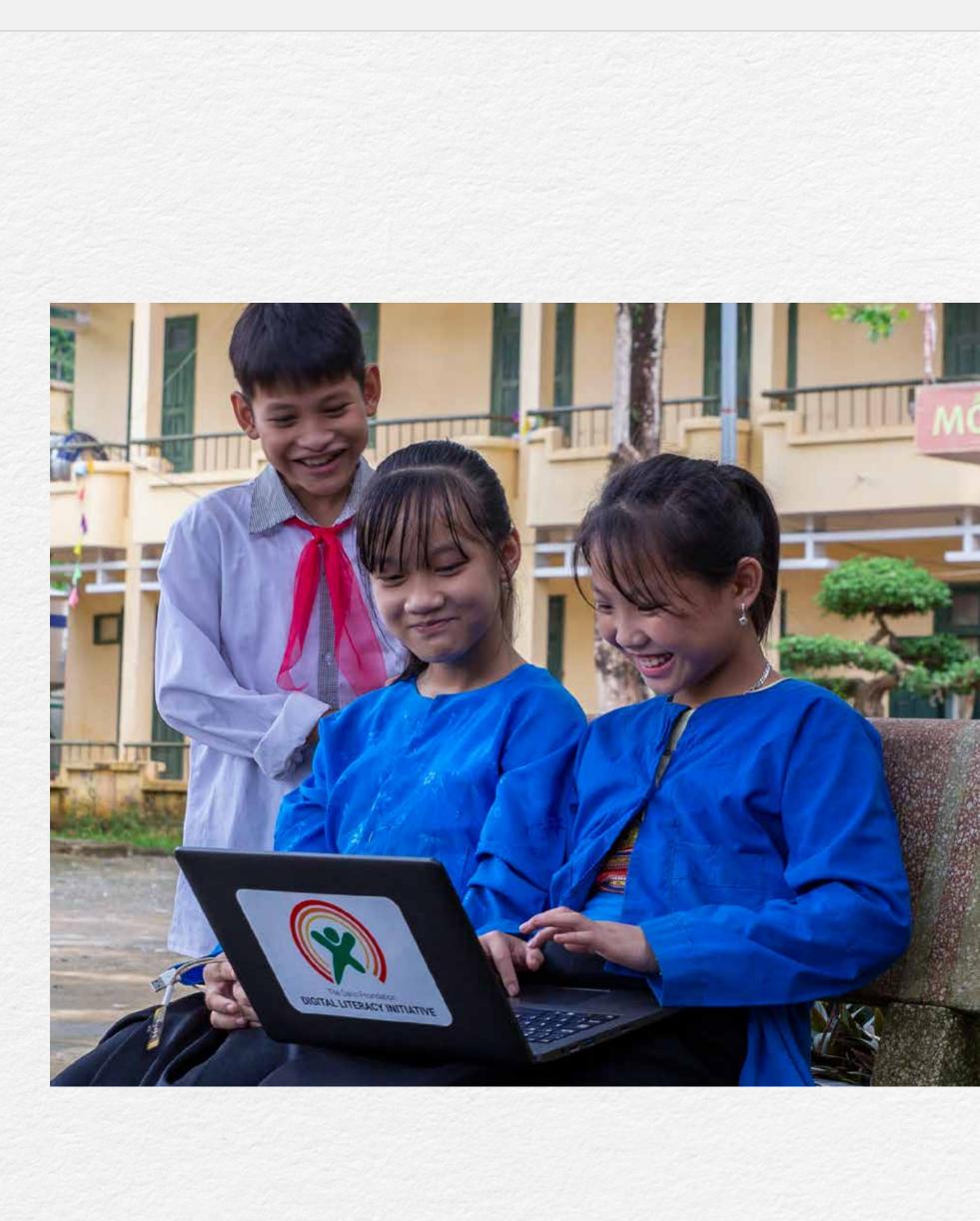
By the end of 2023, over 500 students will have graduated from the above mentioned entrepreneur program, and by the end of the year, a dozen projects developed by students will compete for the "Project of the Year." We are excited to see the outcome!

Also during our anniversary year, we proudly received six awards. Probably the two most important ones are: The "Bett Asia 21st Century Learning Award" which is granted to the individual, group or organization that is using EdTech effectively to develop the necessary skills to help students become independent and confident global citizens and the "Vietnam Union of Friendship Organization Award" for our significant contribution to Vietnam poverty reduction and sustainable development

And last but not least, I would like to draw your attention to a great birthday present we received from Alberto Venzago. The internationally awarded photographer and filmmaker made a wonderful video about our activities. You can find it (and more) on our homepage: www.dariu.org

But the most precious gift, ladies and gentlemen, is you. Your interest and ongoing support are the foundation for our work, for our modest contribution to a better world: a heartfelt thank you from all of us.

**Thomas Trüb** Founder & President









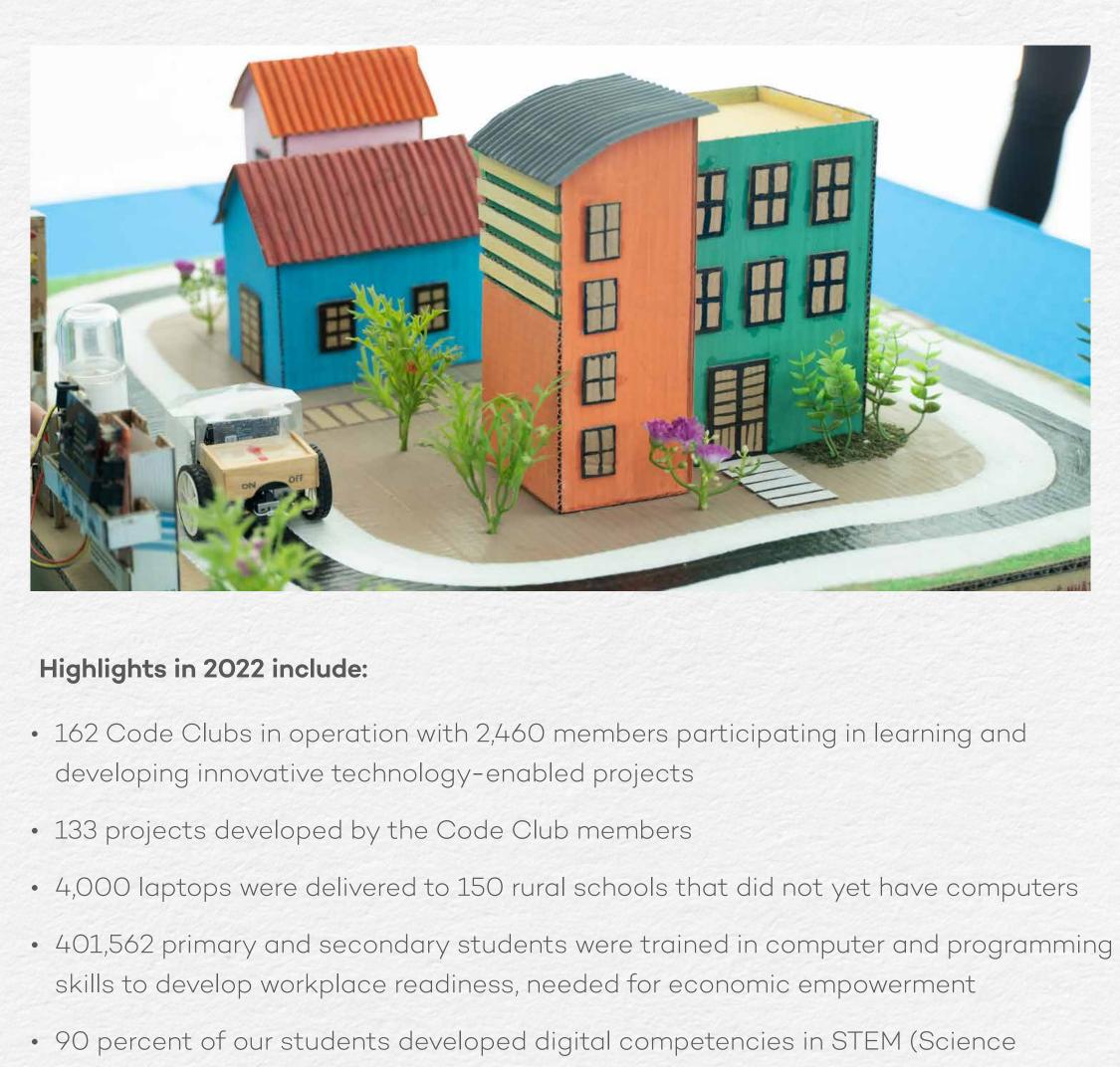






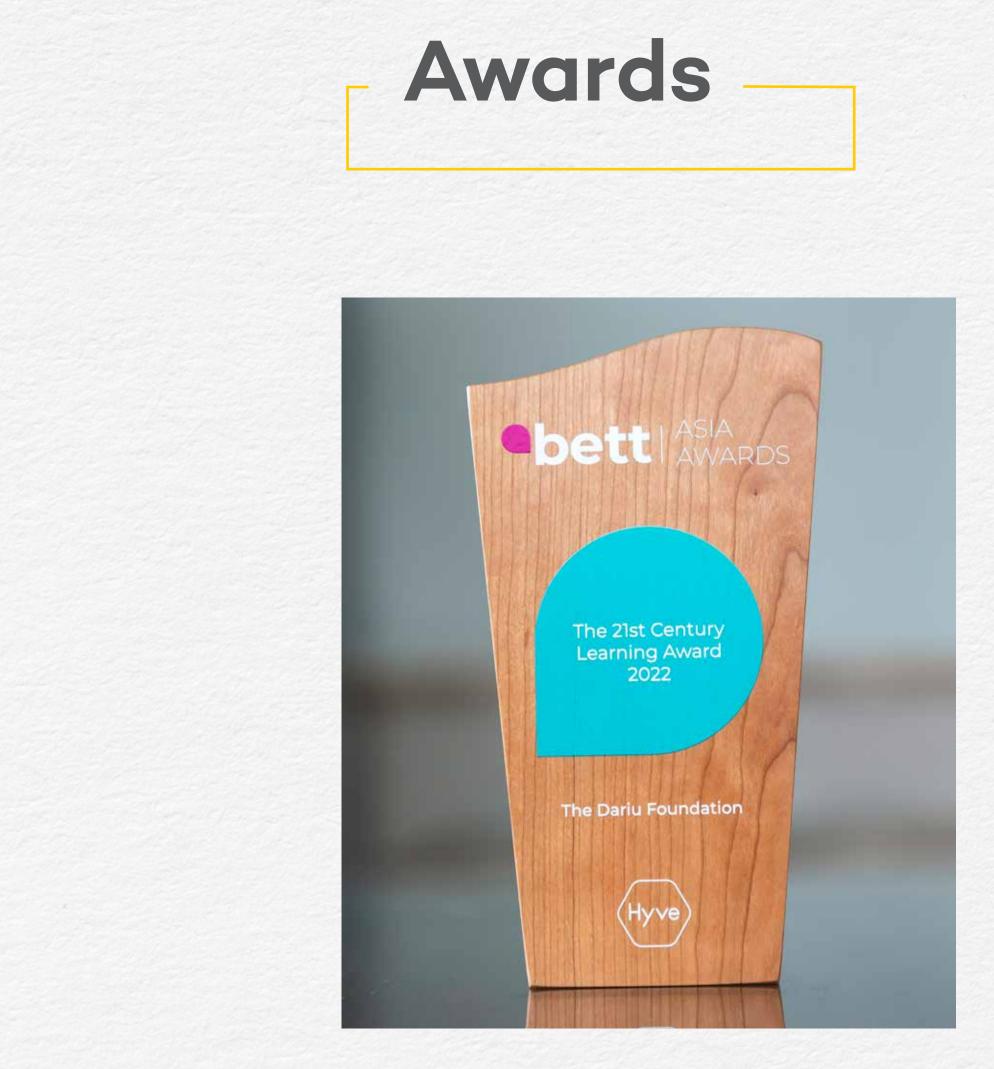






- Technology Engineering Mathematics) that can lead to better employment opportunities
- 3,562 teachers received in-service training, 80 percent of them reported that they gained more confidence in teaching programming skills



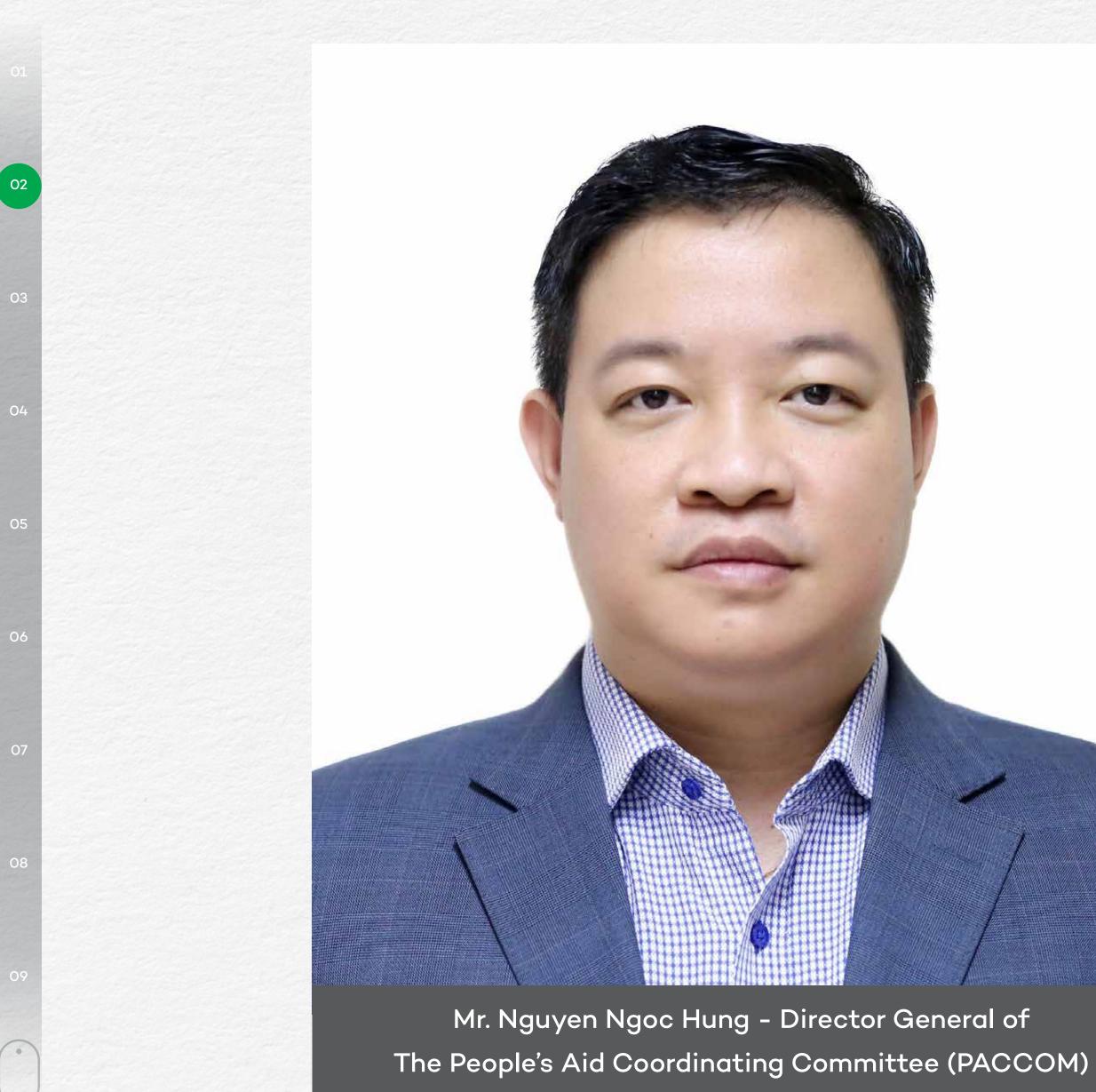


Winner of the "Bett Asia 21st Century Learning Award" 2022



Certificate of Merit for its Significant Contribution to Vietnam's Poverty Reduction and Sustainable Development by the Vietnam Union of Friendship Organisation





"The Vietnamese government is paying close attention to the country's digital transformation and has adopted a corresponding national program that aims to develop the digital economy, society and administration by 2025. This program is closely related to the government's goals of increasing the share of the digital economy in GDP to 20% by 2025 and 30% by 2030. To achieve this goal, Vietnam relies on the continued cooperation and support of international friends, development partners, and foreign NGOs, including The Dariu Foundation, which promotes digital skills training and development for students in Vietnam."

Mr. Nguyen Ngoc Hung - Director General of The People's Aid Coordinating Committee (PACCOM)

#### 2014

Launch of operations in Myanmar with our first four mobile schools.

#### 2011

Launch of the first mobile school in Vietnam.

#### 2007

Opening office in Ho Chi Minh City with 15 staff members.

### 2002

Founding of The Dariu Foundation as an international NGO in Switzerland, launching kindergartens, scholarship and microfinance program.

## Timeline TDF 2002 – 2022



Start of coding skills training for children in our schools.

## 2019

Launch of Digital Literacy Initiative program.

#### 2020

Lounch of Code Clubs, terminating microfinance in Vietnam and Myanmar.

#### 2021

Training over 1.0 million children (50% girls) since 2018 in digital skills, and introducing "IMPOSSIBLE" project.

#### 2022

Start of our geographical expansion with the launch of pilot programs in Bhutan ond Malaysia.

### YEARS OF EMPOWERMENT

THE DARIU FOUNDATION we love coding

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# **Strategy** 2023 - 2027





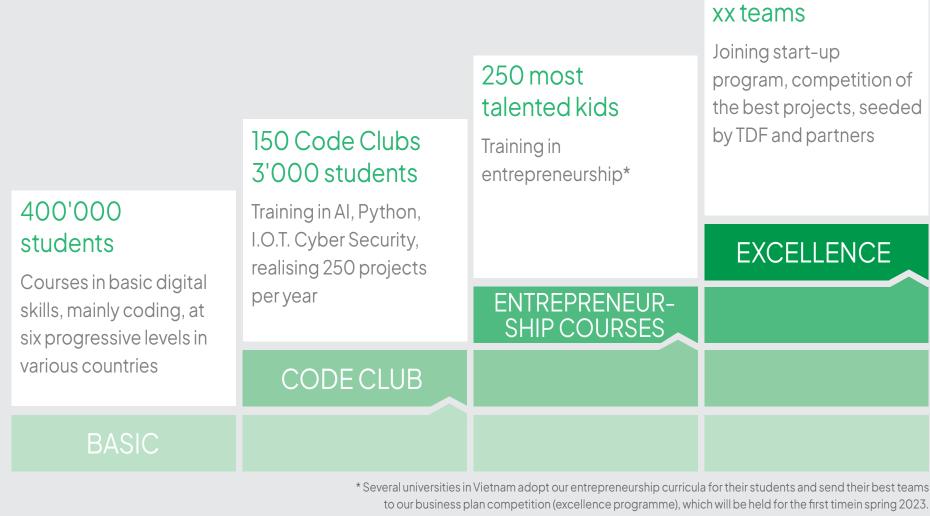
Our priority for the next few years will be geographical expansion. Two pilot projects in cooperation with The Dariu Foundation were already launched in 2022: The Rolf Schnyder Foundation (https://www. fondationrolfschnyder.org), has started to teach basic coding in preschools of Sarawak, Malaysia, while the VTOB Foundation (https:// vtob.org) launched their Digital Literacy Initiative with young volunteers teaching basic coding in secondary and high schools in Bhutan. This was essentially the kick-off for for our further expansion into Laos and Cambodia in 2024.

Our focus on coding remains our number one priority for several reasons:

- It enables children to think critically, evaluate their work and engage in a global community.
- It gives children the skills, confidence, and opportunity to change their world.
- It is an important driver for social and economic development, as almost every job requires digital skills.
- It allows young people from rural areas to get the necessary tools to quickly adapt when they move to the city.

- It opens more career opportunities: Coding skills are in high demand in today's job market, and the demand for people with coding skills is expected to continue to grow.
- By encouraging girls to take part in our coding courses - they always make up at least 50% of the participants - we can promote gender diversity in tech. Currently, the technology industry is maledominated. By encouraging girls to learn to code, we can help bridge the gender gap in the industry while fostering gender equality in the technology industry.

An important pillar will be our "IMPOSSIBLE" project, which was launched in 2022. It will give all interested children - about 400,000 per year - access to basic digital literacy. The most talented among them are invited in a subsequent step to our Code Clubs, where they can develop and carry out projects and submit them to national and international competitions. From the greatest talents, we select those whom we want to give the tools to become entrepreneurs. To achieve this, we have identified different levels:



Several universities in Vietnam adopt our entrepreneurship curricula for their students and send their best teams to our business plan competition (excellence program), which will be held for the first time by the end of 2023.





Telegram, gmail va thiët bi di dong ous nguoi thân. Ngoài ra, san phẩm sho gọn, có thể mang theo de trong cap, hóp bứt, giữu bông.... Hồ trợ wiec bao vè OI am tu za thông thia kha nàng thông beo kip thời cho giệ định, người thân. Nhằm phòng ngừa từ to, ngăn chiến các trường



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Code Club Project Highlights

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code club

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CÂULẠC BỘ LẬP TRÌNH







## **HIGHLIGHTS IN 2022 INCLUDE:**

- 162 Code Clubs in operation
- 2,460 members participating in learning and developing innovative technology-enabled projects
- 133 projects developed by the Code Club members
- 6 projects awarded internationally





## PROJECT 1: AUTOMATIC EMERGENCY SYSTEM FOR KARAOKE BARS

Instructed by: Le Thi Tuoi, IT teacher

Developed by: Nguyen Minh Kiet and Nguyen Minh Khang (both 14 years old) Address: Vi Thuy Secondary School, Hau Giang Province

#### **PROJECT DESCRIPTION**

Karaoke bar fires often lead to a high death toll, caused by suffocation and no access to safety exits. In an airplane, oxygen masks are released whenever there is a drop in cabin pressure or in case of emergency. Our group decided to develop a project called Automatic Emergency System for Karaoke Bars.

#### **HOW IT WORKS**

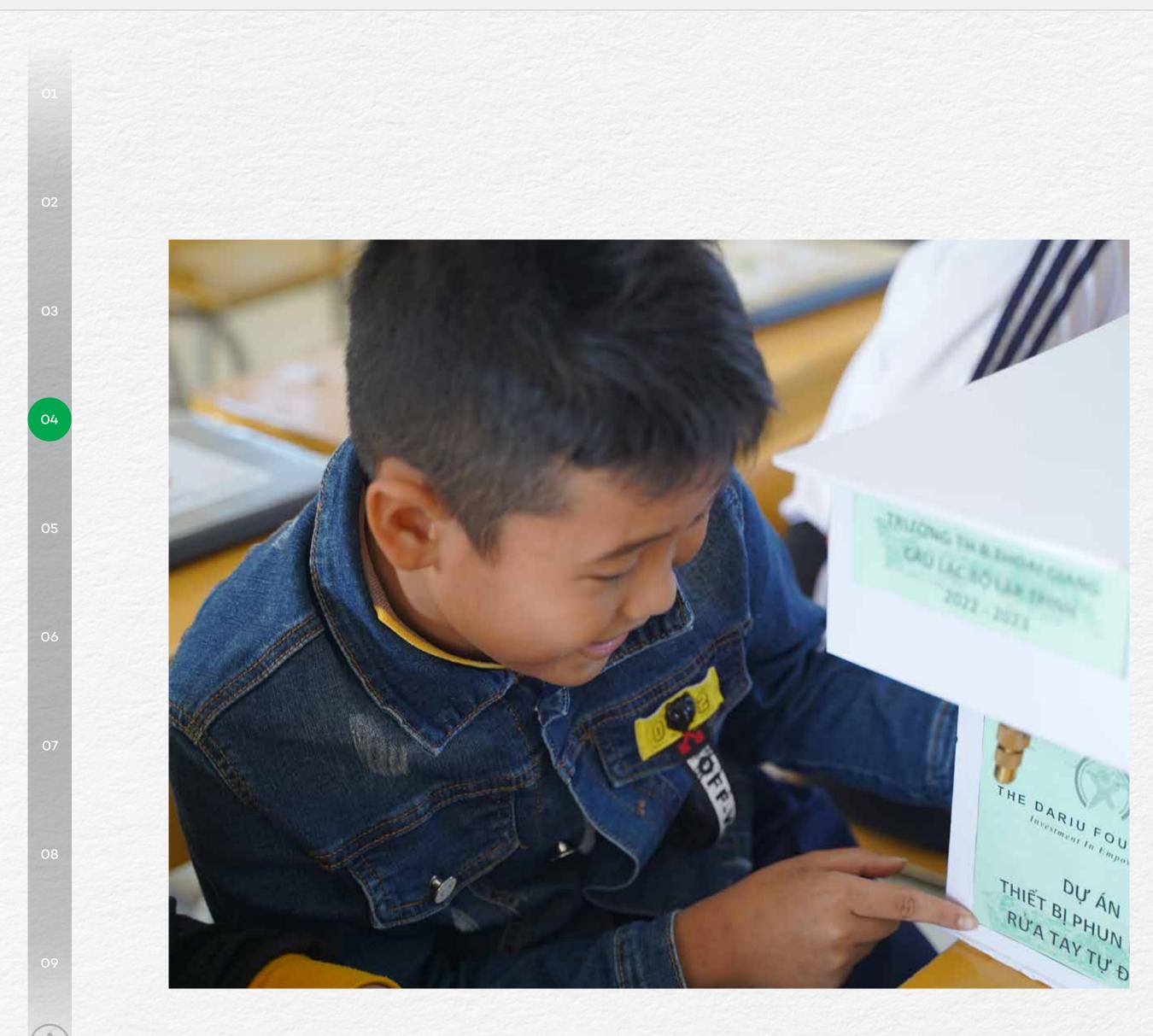
In the event of an emergency/fire, the system automatically releases safety masks (with reflective strips) from the ceiling and people in the room should put them on before exiting the room.

In each room the smoke detectors are connected to the central system. When smoke is detected, an alarm is triggered, and all fire escapes are automatically released. People can easily find their way out or to the escape ladders, so they do not have to jump out of the building, which in many cases leads to death or serious injury.









### **PROJECT 2: AUTOMATIC MOSQUITO SPRAY**

Instructed by: Co Nguyen, IT teacher Developed by: Ho Minh Khoi (11 years old) Address: Thoai Giang Primary School, An Giang Province

#### **PROJECT DESCRIPTION**

Dự ÁN

TAYTUD

During the rainy season, mosquitos usually increase in numbers and we see a lot of mosquitos in classrooms, toilets etc. Our group decided to develop an automatic mosquito sprayer, to dispense chemicals to kill mosquitos.

#### **HOW IT WORKS**

The sprayers are used where necessary and spray the chemicals according to a schedule. When the chemical tank is empty, the sprayer sounds an alarm so we can refill chemicals to keep the operation going.

The next development shall be a sprayer that can be connected to a smartphone.



## **PROJECT 3: AUTOMATIC RICE DISEASE DETECTOR**

Instructed by: Nguyen Van Giau, IT teacher Developed by: Nguyen Thi Nhu An and Nguyen Ngoc Ngan (both 14 years old) Address: Hieu Phung Secondary School, Vinh Long Province

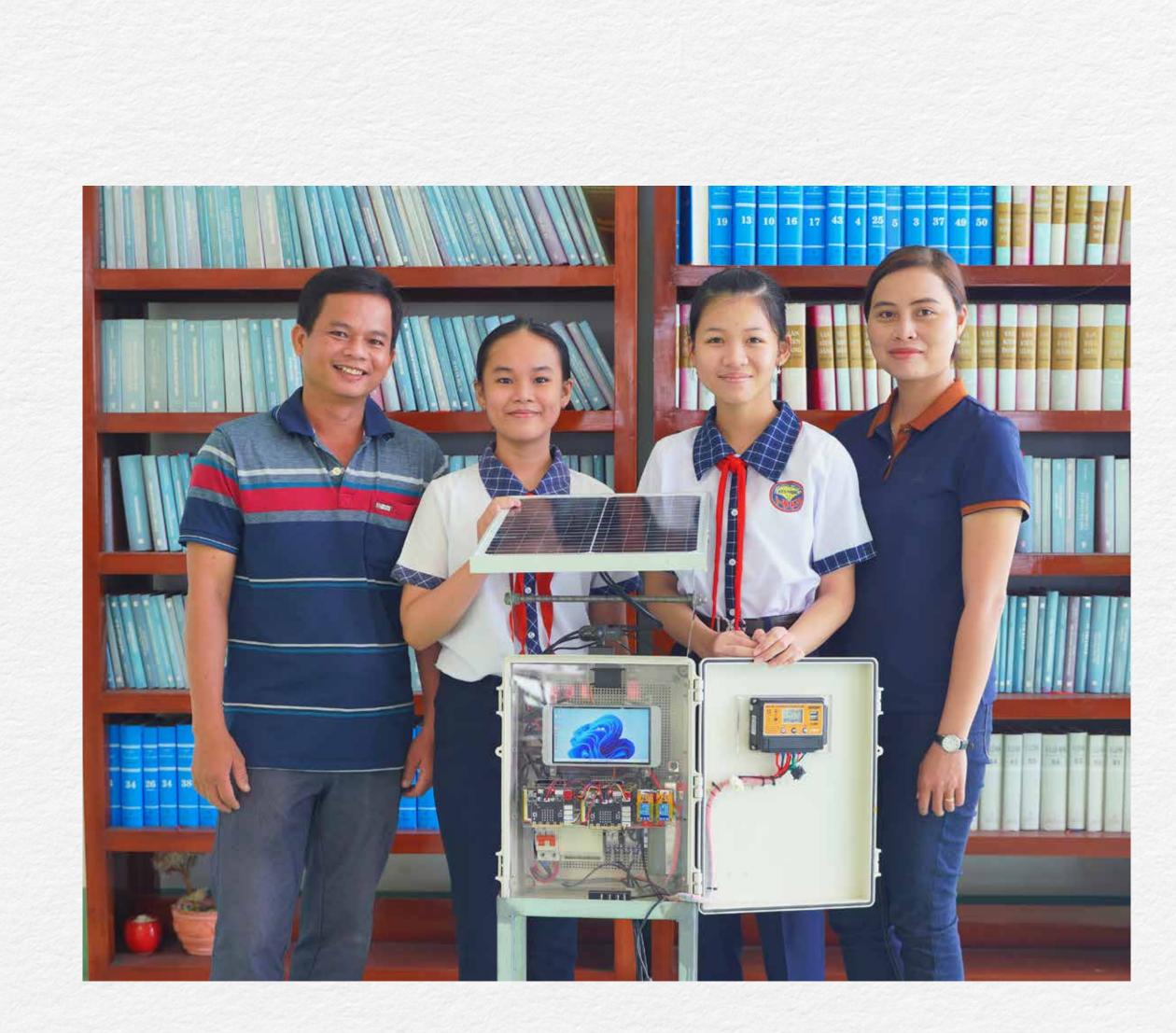
#### **PROJECT DESCRIPTION**

Farmers largely rely on their experience or direct visit to the rice field to detect rice diseases. In some cases, they fail to recognize the diseases in time and thus manage to rehabilitate the farm, resulting in crop losses. Our team has developed a project called "AUTOMATIC RICE DISEASE DETECTOR" to help farmers detect rice diseases in a smarter and more reliable way.

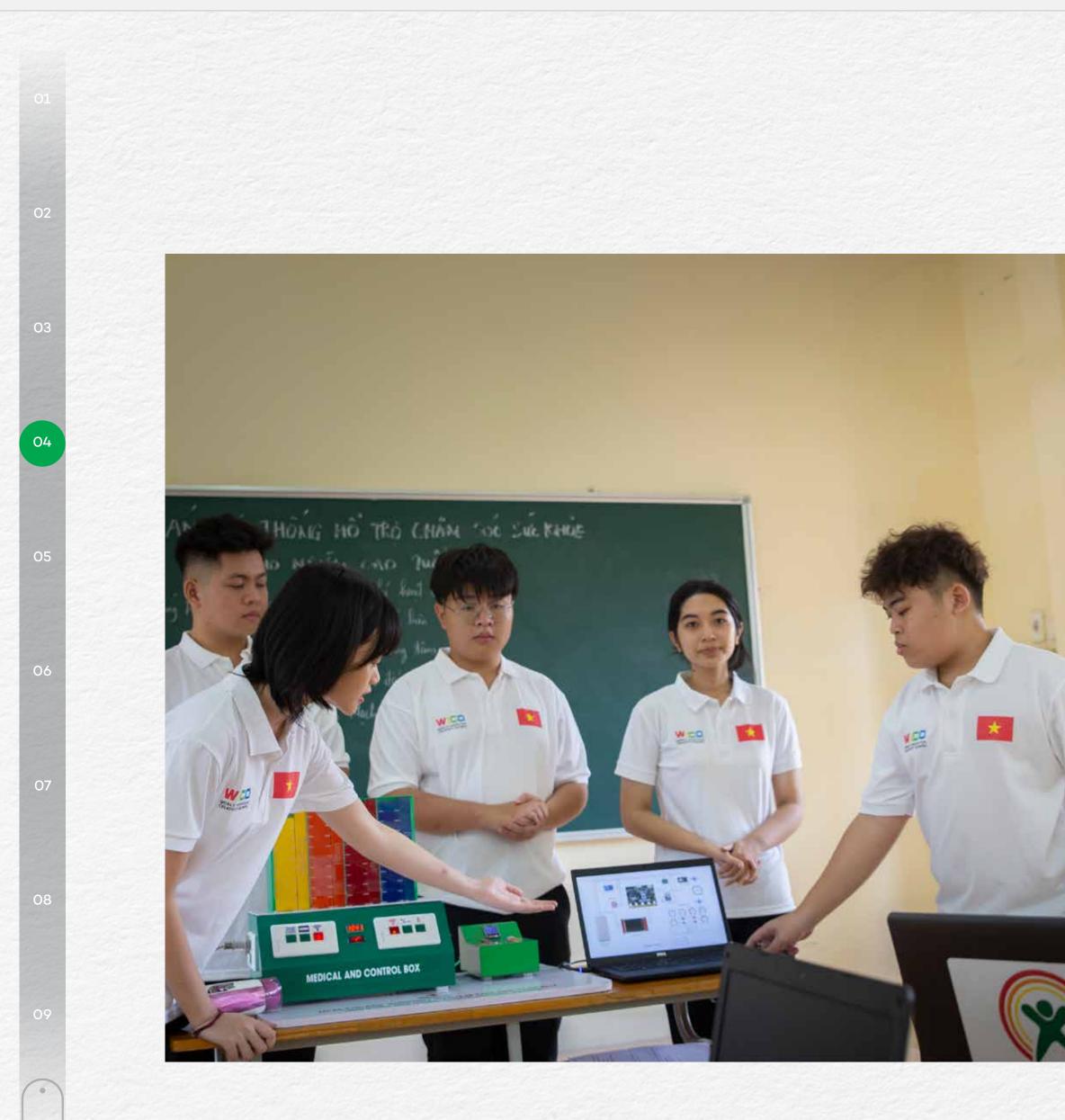
#### **HOW IT WORKS**

The detector, which is installed in cameras in the field, can help detect rice diseases by taking regular images. These images are uploaded to cloud services for analysis (using Scratch AI). The captured images are sent to ThinkSpeak to synchronize with the stored data and generate the analysis results. Once the diseases are detected, the system gives advice on which chemicals should be used to cure the diseases.

So far, the system has been able to analyze six samples. Over time, we will be able to add and analyze more and other diseases, not only for rice but also for other crops.







### PROJECT 4: HEALTHCARE SUPPORT SYSTEM FOR ELDERLY

Instructed by: Nhu Quynh Bui, IT teacher

Developed by: Hai Dang, Minh Anh, Tri Dat, Duc Manh and Minh Nhat (all 17 years old) Address: Cong Nghiep High School, Hoa Binh Province

#### **PROJECT DESCRIPTION**

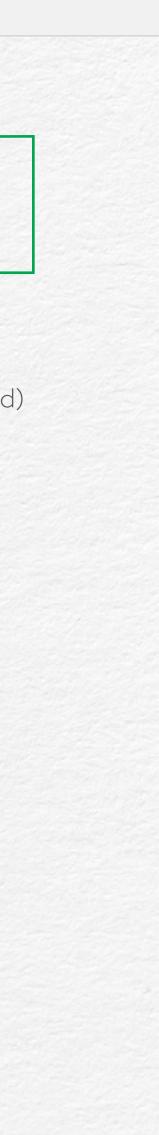
It is increasingly common for elderly people to stay at home alone without their children taking care of them or living close by. They need to take medication but often forget to do so. Therefore a small Code Club team from Hoa Binh's Cong Nghiep High School has developed a project to help the elderly take care of themselves.

#### HOW IT WORKS

The system has two functions:

Function 1: It measures indicators such as room temperature, humidity, light intensity etc. These indicators will be online so that family members can check and when needed adjust them.

Function 2: The system includes a medication box (with 30 sub-boxes) with an alarm that reminds the elderly to take their medication. If they do not take it, the system sends notifications to family members so they can remind them to do so.





### **PROJECT 5: AUTOMATIC WATERING SYSTEM**

Instructed by: Dang Van Binh, IT teacher

Developed by: Hai Lam and Duc Nguyen (15 & 12 years old)

Address: Kim Dong Secondary School, Hoa Binh Province

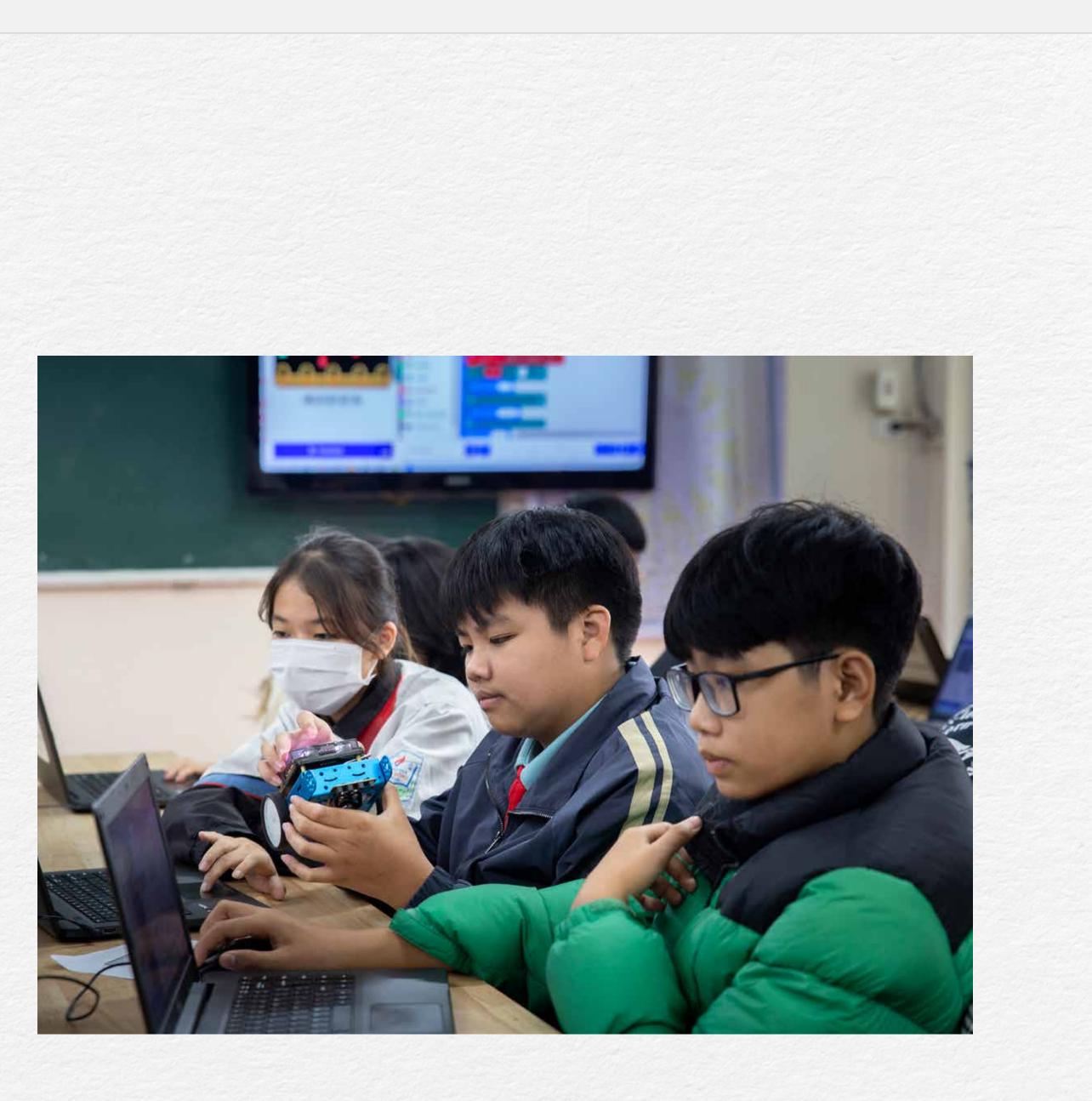
#### **PROJECT DESCRIPTION**

It takes a lot of time and effort for our school's gardener to water all the plants and flowers. And we see this task being repeated every day. That is how the idea came up to help him to release the burden of daily manual work.

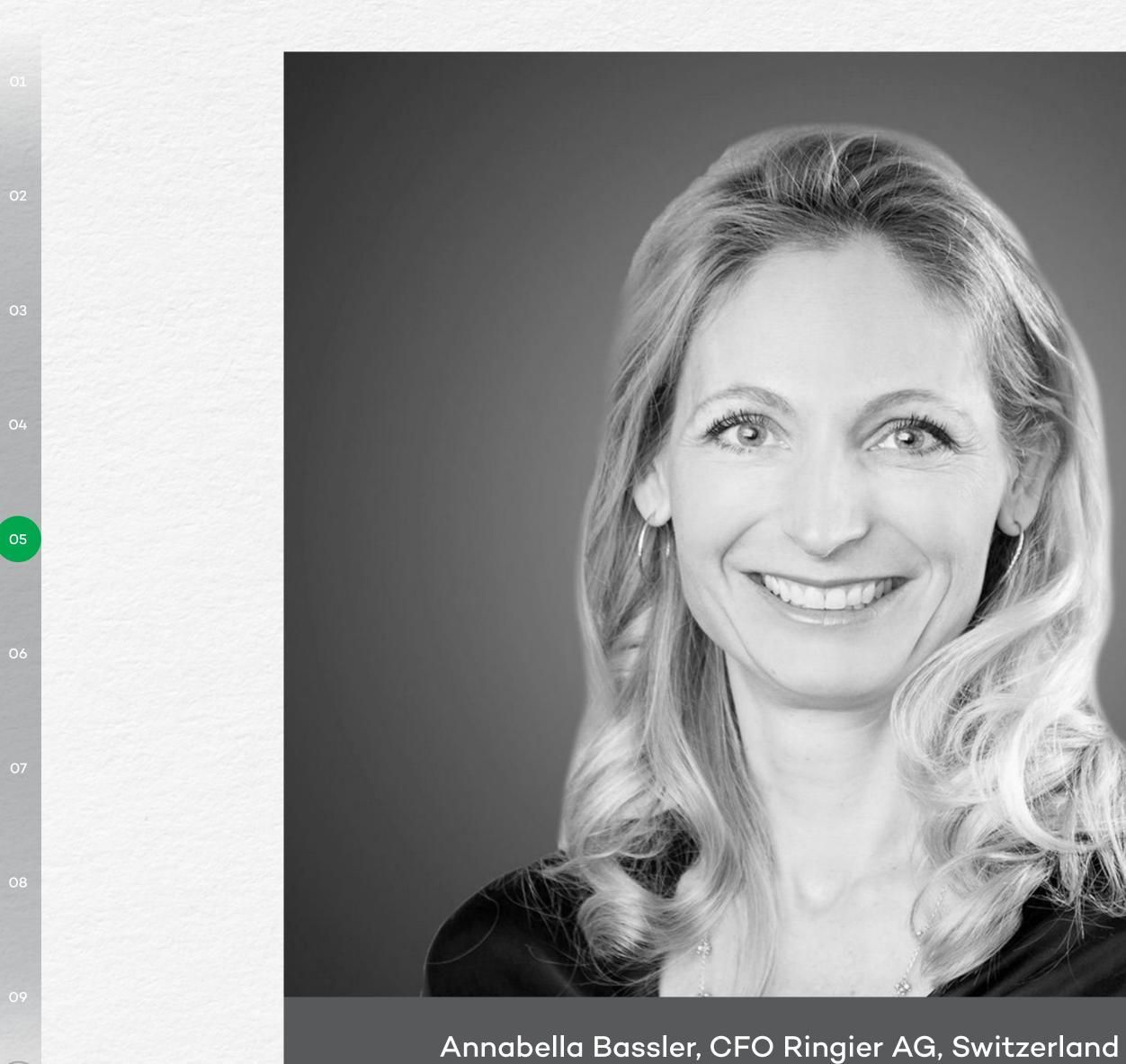
#### **HOW IT WORKS**

The central processor includes a Micro:bit and extension board connected to sensors of humidity, temperature, light and rain. The second processor includes a Micro:bit connected to the pump, and other Micro:bits to control the whole system.

The central is transmitting signals through the Lora board to tto switch the pump on/off automatically. As soon as the pump is running, it also sends the signal to another processor, which controls the watering of the plants in a specified order and duration.







"Digital Literacy is a combination of both technical and cognitive abilities in using information and communication technologies to create, evaluate and share information. The Dariu Foundation does fantastic work by empowering young people in Southeast Asia to succeed in life through school and digital education."

#### Ms. Annabella Bassler, CFO Ringier AG, Switzerland



"I have seen enough misery. It is always the weakest who are exposed to power and cannot defend themselves. Children.

I never forget those eyes, how they look at me, as one who tries to ally with them, but still always being an outsider. A privileged one.

Enough is enough. Thomas and his Dariu Foundation give courage that something can change. It doesn't just take money to do that. It requires us to change and stand up for something. Something important. Something that can be passed on to further generations: KNOWLEDGE."

### Mr. Alberto Venzago, Filmmaker and Photographer



Alberto Venzago, Filmmaker and Photographer





## DIGITAL LITERACY INITIATIVE

- A total of 474 local state schools joined the training network, of which 150 are mobile schools
- 1,513,562 students have been trained in digital skills since the beginning of our digital literacy initiative, of which 401,562 students were trained in 2022

## **CODE CLUBS**

- A total of 2,460 students joined the network in 162 Code Clubs
- 133 projects developed by Code Club members in 2022. A total of 506 projects were developed since 2018
- 6 international awards in 2022

## SCHOLARSHIPS

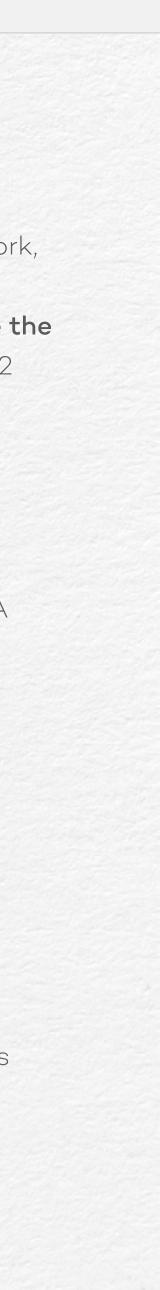
• 20,951 scholarships granted since 2007

### **KINDERGARTENS**

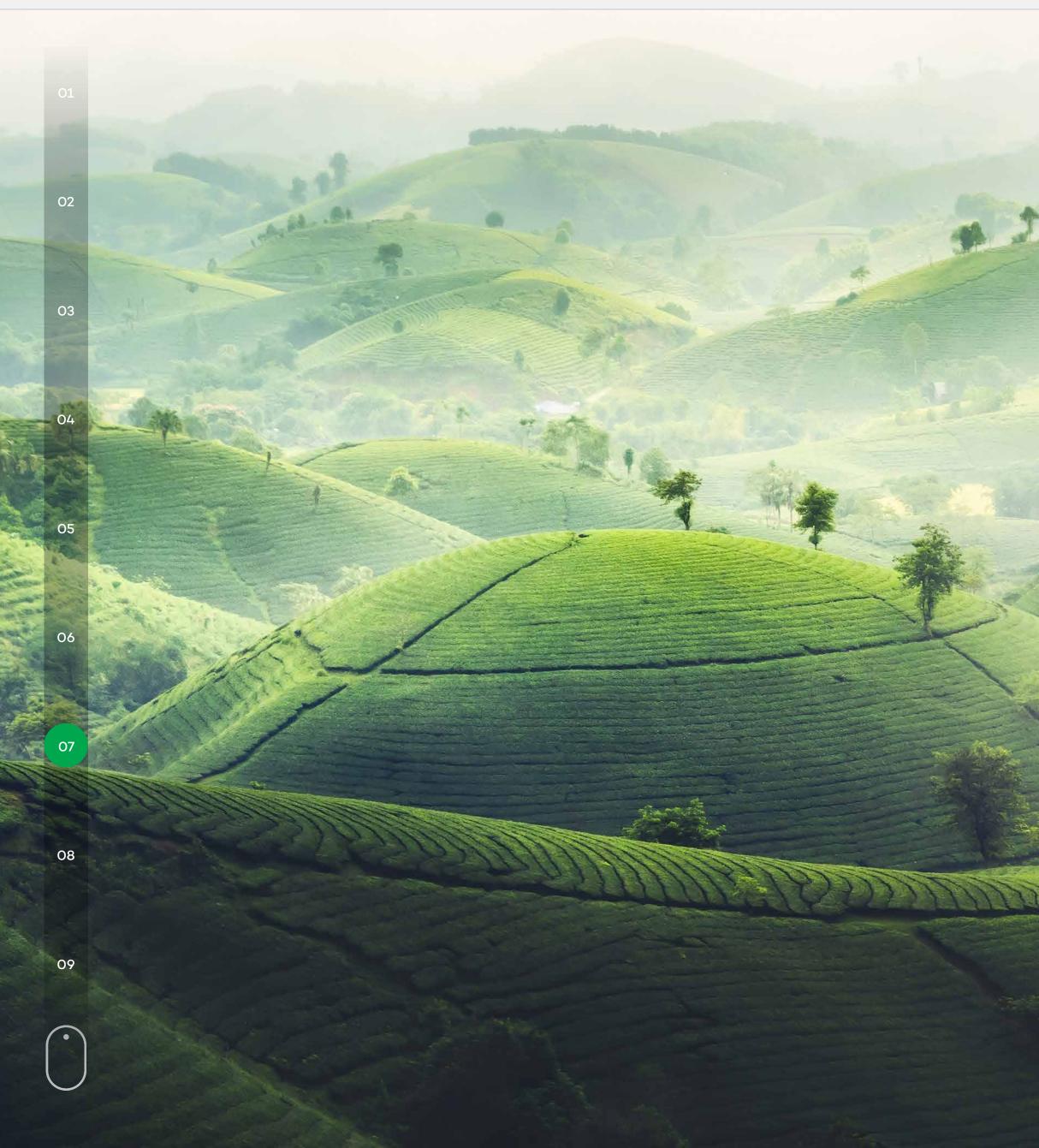
• 34 kindergartens built since 2004

## **VOCATIONAL TRAINING PROGRAM**

- 901 graduated students in 2022, a total of 1,666 students have been trained since 2019
- Percentage of employment after graduation: 85%











## THE DARIU FOUNDATION Balance sheet as per December 31, 2022

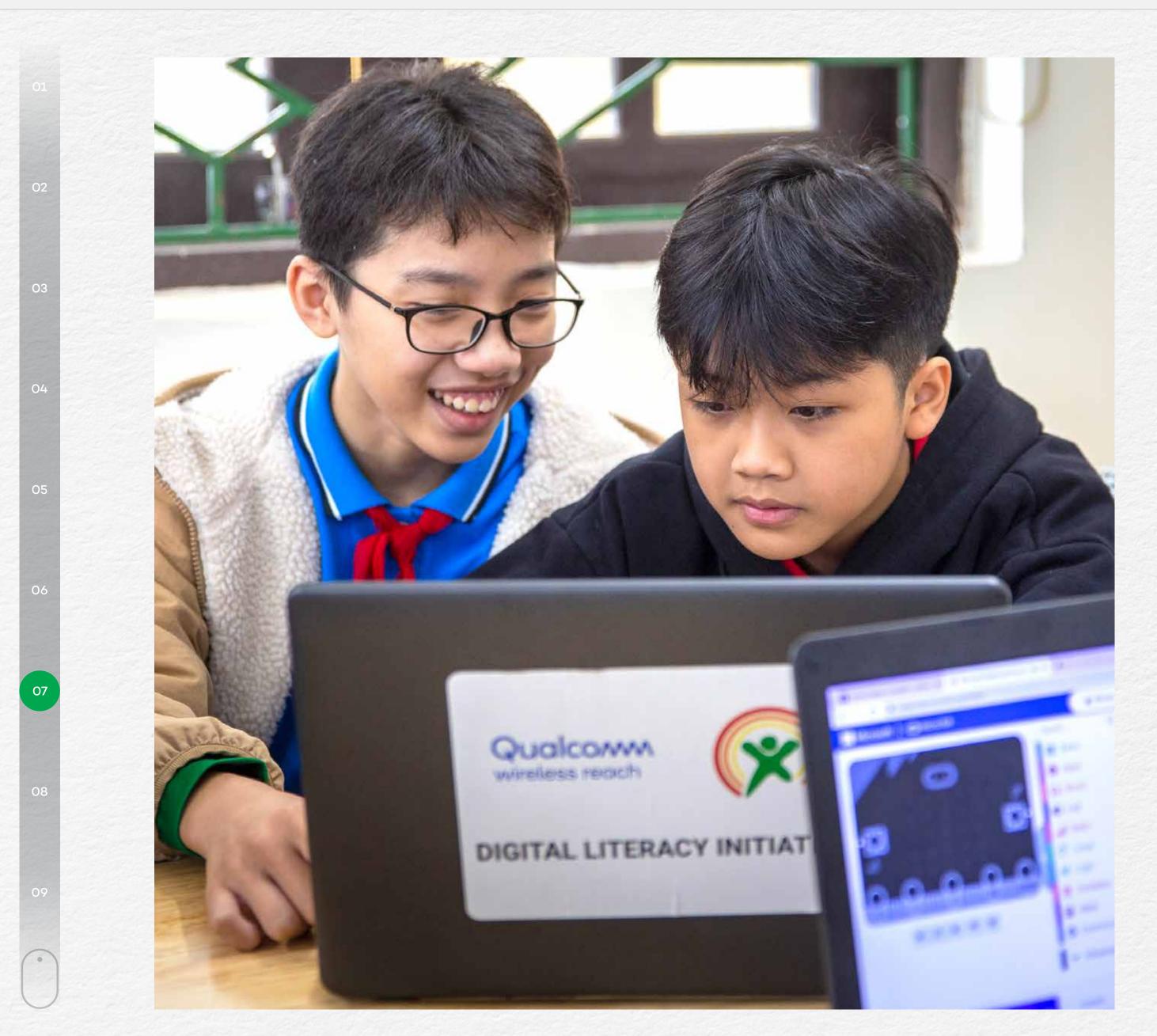
Unit: CHF	31/12/2022	31/12/2021
Assets		
Cash	4,988,555	4,800,173
Other accounts receivable	1,700,000	1,000,170
- From not related parties	0	184,302
Total current assets	4,988,555	4,984,475
Fixed assets		
- Holdings (more than 20%)	1	1
Fixed assets	1	1
Total assets	4,988,556	4,984,476
Equity and liabilities		
Account payables		
<ul> <li>Account payables to suppliers</li> </ul>	4,213	115,773
<ul> <li>Account payables to suppliers</li> <li>Account payables to related parties</li> </ul>	4,213 15,400	115,773 900
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- Account payables to related parties	15,400	900 <b>116,673</b>
- Account payables to related parties Current liabilities	15,400 <b>19,613</b>	900 116,673 116,673
- Account payables to related parties Current liabilities Liabilities	15,400 <b>19,613</b> <b>19,613</b>	900 116,673 116,673 0
- Account payables to related parties Current liabilities Liabilities Capital	15,400 19,613 19,613 0	900 116,673 116,673 0 400,000
<ul> <li>Account payables to related parties</li> <li>Current liabilities</li> <li>Liabilities</li> <li>Capital</li> <li>Registered organizational capital</li> </ul>	15,400 19,613 19,613 0 400,00	115,773 900 <b>116,673</b> <b>116,673</b> <b>0</b> 400,000 4,467,803 <b>4,867,803</b>

Restatement of the balance sheet as per 31 December 2021

For further information, please refer to the audited Financial Statements







## THE DARIU FOUNDATION Profit & Loss Statement 2022

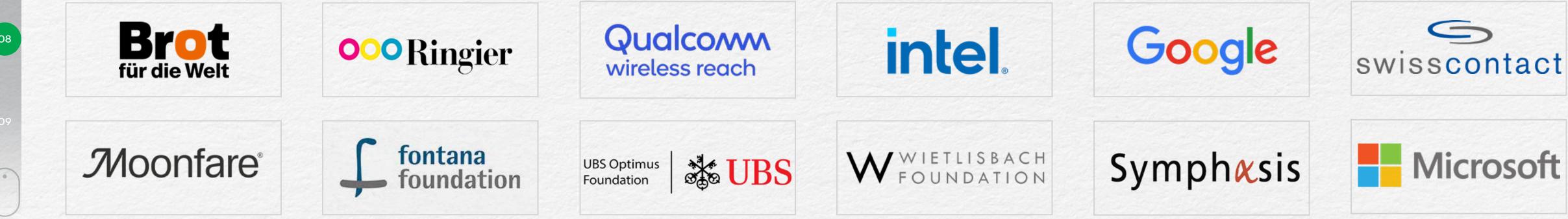
Unit: CHF	YEAR 2022	YEAR 20
Donations		
Project related donations	0	37,14
Free donations	1,214,101	674,1
Income	1,214,101	711,3
Project expenses	-782,076	-462,9
Personnel expenses	-76,776	-76,63
Non-personnel expenses	-134,168	-11,9
Expenses	-993,020	-551,5
Operating result	221,081	159,70
Financial income	55,362	159,6
Financial loss	-175,303	-112,90
Net financial loss	-119,941	46,7
Result before allocation to organizational capital	101,140	206,5
Changes in registered capital	0	
Result (before allocation to organizational capital)	101,140	206,5
Allocations/Use unrestricted capital	-101,140	-206,5
Result after allocation to organizational capital	0	

Restatement of the income statement for the year ending on 31 December 2021 For further information, please refer to the notes to the Financial Statements





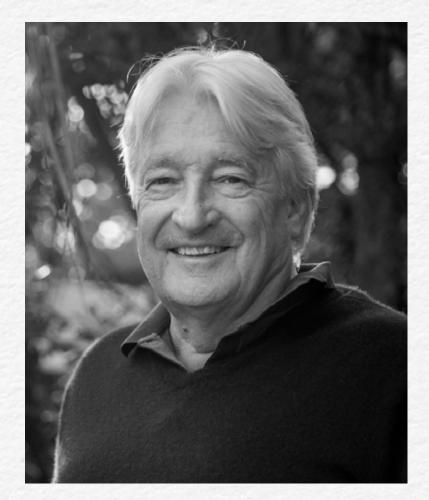








## Members of the Board



THOMAS TRÜB Founder and President



DANIEL KELLER Vice-President



ANNABELLA BASSLER CFO



MANUEL LIATOWITSCH Legal Counsel



CHAI SCHNYDER Member



