

Impact Report 2022

Your contribution drives
national STEM forward



YEAR 2022

IN A GLANCE

In 2022, the education sector faced challenges with the implementation of new policies for returning to physical learning. All school teachers tried their best to ensure a smooth transition from the virtual world to physical learning.

We at Chumbaka took a proactive approach, ensuring a seamless transition for both students and teachers in our programs, ensuring learning is a joyous experience.

Through a combination of physical and virtual classes, the virtual component allowed us to expand reach to a wide variety of schools in Malaysia, while physical events bring excitement among students and teachers. We are ever grateful for the dedicated teachers in schools acting as change agents to bring the best joyous learning experience to the students.

Overall, 2022 was a successful year for Chumbaka in our role as a catalyst to bring quality education.



Problem Statement

DIGITAL SKILLS GAP IS WIDENING FAST IN MALAYSIA



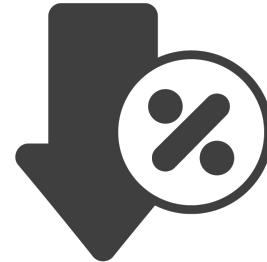
Demand for digital-related positions in the Malaysia **increased by 300%**, waiting to be filled.

([Astro Awani](#), 2022)



A Global Skills Report by Coursera last year **ranked Malaysia in the 46th spot**, way behind Singapore (10th) and Vietnam (20th).

([Tech Wire Asia](#), 2022)



Malaysia has not been able to achieve the targeted 60% STEM students for the past 20 years

([The Star](#), 2023)

Our Framework

HOW OUR 3 PILLARS PREPARE KIDS FOR THE FUTURE

Our Vision

All children will have the right skill sets and values to navigate the changing future



mentor

passionate in children education

Triggers students to think deeper

Motivates students to achieve their potentials

Continuously trained in education psychology



curriculum

developed by expert engineers and educators

Covers Industry 4.0 technologies and life skills

Self-pacing with Project-based Learning

Assessment based on public presentation of Showcase Project



technology

to deliver learning similar to world-class universities

Triggers students to think deeper

Motivates students to achieve their potentials

Continuously trained in education psychology

Our Purpose

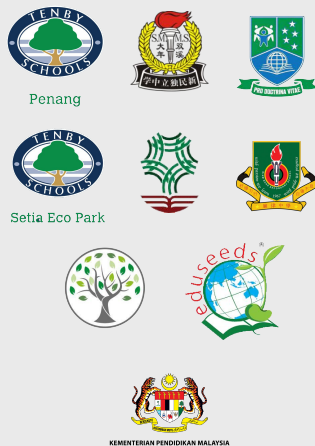
WE WORK CLOSELY WITH VARIOUS COMMUNITY PARTNERS TOWARDS A COMMON VISION

Strategic partnerships with our community partners and schools enable Chumbaka to drive STEM at various levels, pushing towards the common goal of national agenda in STEM.

Communities



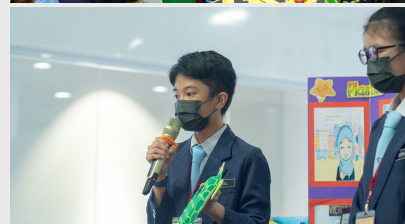
Schools



Teachers



Students



Our Impact

OUR DATA ACROSS THE YEAR 2022

through our programs, this year we have reach:

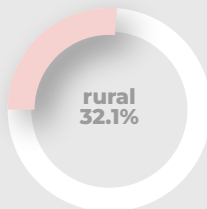
Primary School 309

Secondary School 402

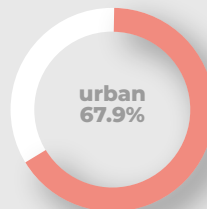
Students 6354

Teacher 930

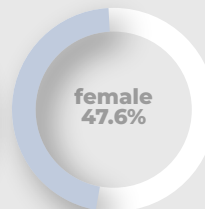
University Students 293



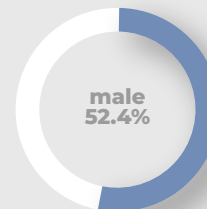
rural
32.1%



urban
67.9%



female
47.6%



male
52.4%

More than 30% of schools under our programs are rural. Reported by the MOE in 2022, 42% of schools in Malaysia are rural.

We aim to have a healthy mix of male and female students in our programs. Reported by the MOE in 2022, 49% of students in Malaysia are female.

NORTH

85 schools
2 programs

CENTRAL

86 schools
3 programs

EAST

33 schools
2 programs

SOUTH

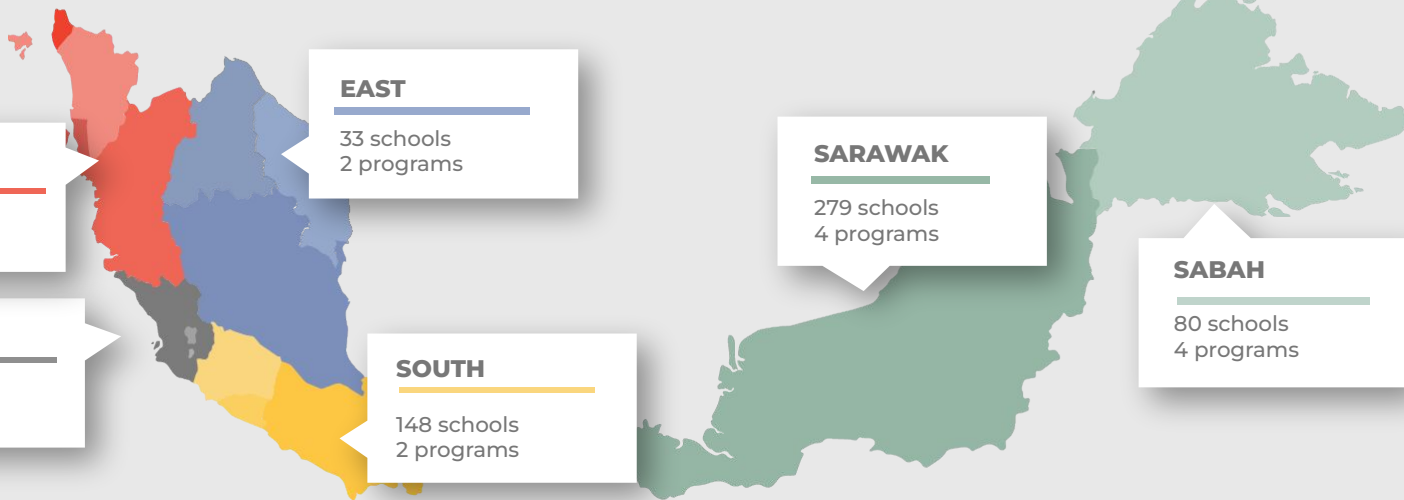
148 schools
2 programs

SARAWAK

279 schools
4 programs

SABAH

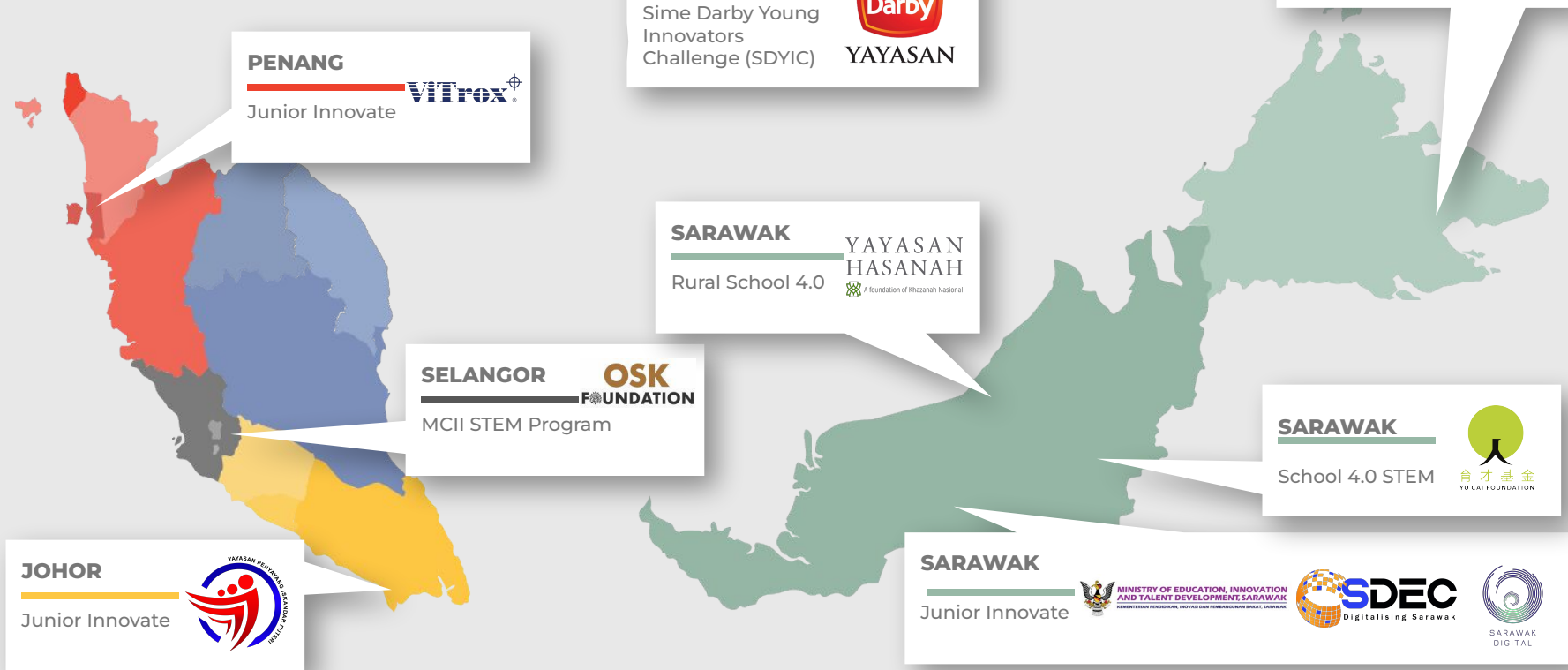
80 schools
4 programs



Our Impact

COMMUNITY SUPPORTERS BEHIND YEAR 2022

We didn't do it alone. Thanks to various community supporters, we are able to reach out to many schools in Malaysia



Our Impact

CONTINUOUS LEARNING AFTER CHUMBAKA PROGRAM

Our alumni (including students, mentors, and teachers) have been leveraging on our education programs and support networks for their personal and professional development.



JOSEPH CONTINUES HIS PASSION IN STEM

Joseph Chung, a multiple-time SDYIC alumnus started his innovation journey back in SDYIC2016 with his first project "[Robin Food](#)". Currently, he is pursuing his studies in Bachelor of Science at University of British Columbia, Canada as well as being actively involved in YIC as a Jedi and Technical Consultant to guide other young innovators.



SYED MENTORS HIS PRIMARY SCHOOL JUNIORS

Syed Muhammad started his innovation journey back in primary school (2020). He and his sister came in second place in the JI 2021 competition. Syed is now a secondary school students, mentoring his juniors in the primary school for JI2022, so that his learning doesn't go to waste.



CIKGU BEATRICE TRAINS FELLOW TEACHERS

Under the [Yayasan Hasanah Sarawak School 4.0 program](#), Cikgu Beatrice creatively maps Chumbaka content into the DSKP, enabling her Years 4 and 5 students to learn meaningfully. Her effort was proudly recognised by SISC+ coaches who [invited her to share her experience](#) in a professional development workshop for teachers.

Our Impact

STUDENT PROJECTS ADOPTED IN COMMUNITIES

Our students have the opportunity to adopt their inventions into the community – thanks to the [Sime Darby Young Innovators Challenge 2021](#) (SDYIC2021) Innovation Grant. These students have benefited hundreds of people with their inventions.

CODE MODE

Intending to promote public health following up on COVID-19, the sibling duo, Code Mode from SMK(P) Sri Aman and Wesley Methodist School (WMS), built a self-sanitizing fixture that was installed at SMK (P) Sri Aman for the benefit of the school community.

See their project [here](#).



DRIFTERS DUO

Team Drifters Duo from SMK Taman Bukit Indah produced 2 units of the River Trash Collector, a device with the ability to collect trash on water. They deliver their product to the Bakar Batu Orang Asli community to facilitate the locals in collecting the rubbish from the river.

See their project [here](#).



STK GLORIOUS 1

Team STK Glorious 1 produced 10 units of SP Box, a delivery-drop box that ensures the safety of parcels for its users. This device includes a sensor and sends alert notifications to the user. All 10 units have been successfully delivered to the residents of Klauang.

See their project [here](#).



Our Impact

STUDENT PROJECTS ADOPTED IN COMMUNITIES

SDYIC2022 has recently come to a close. 3 grant winners were announced with interesting projects targeting on health, environment, and automotors.

The grant winners are working tirelessly to bring their projects into the community, so stay tuned!

S.A.T

Team S.A.T from SMK (P) St. George developed a mental health app, Enhance that helps alleviate mental health issues in the society. The app is readily available in Google App store and to current date has almost 100+ users.

See their project [here](#).



PHOENIX

Team Phoenix from SMK Convent Ipoh benefits visually impaired individuals with their device that allows money recognition, D'eye. The team successfully produced and distributed 16 units to students of the Malaysian Association for the Blind Kinta Valley Rehabilitation Centre, Ipoh, Perak.

See their project [here](#).



Our Way Forward

Partnering to build School of The Future (SOTF)

If you share our vision and are interested in shaping the future of education, collaborate with us!

Our Vision

All children will have the right skill sets and values to navigate the changing future

The **job of the future** is one where a high degree of **empathy** and **creativity** are required to fulfil the **needs of people**, with the help of **technologies**

SOTF will have **intense focus** on student's **holistic development** with **technology as 4th literacy** in order to be relevant in the **future workplace**.

Chumbaka's Role

1. Develop curriculum and pedagogy
2. Develop and update content
3. Develop digital tools for scalable delivery

SOTF's Role

1. Focus on core values
basic literacy, values, well being
2. Partnering others for non-core
music, tech, sports etc
3. Provides co-learning space
for SOTF to engage with students



#staycurious

If you are interested to understand more:

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