2022

WORKSHOP: EXPLORING A DIGITAL SCIENCE GATEWAY FOR ACCESS OF YOUTH IN LMICS

At: The Hive Innovation Lab
Rte du Nant-d'Avril 150, 1217 Meyrin
On: Tuesday, February 8th, 13h00 to 17h00

Link and access code to the workshop:

https://indi.to/workshop8feb

Access code: workshop2022

Quantum FutureX

Table of Contents

Workshop programme

Session no.	Time	Session title
Arrival	12:45	Please make sure you arrive at 12:45 to The Hive Innovation Lab
1	13:00	Introduction, 30'
2	13:30	Workshop session, part 1: CERN & Fondation Botnar insights and inspiration, 45'
3	14:15	Coffee Break, 15'
4	14:30	Workshop session, part 2: Collaborative ideation on key thematic areas, 45'
5	15:15	Coffee Break, 15'
6	15:30	Workshop session, part 3: Sharing findings, 45'
7	16:15	Finishing the workshop: Information on next steps, 15'
8	16:30	Apéro, 30'

COVID-19 measures[1]

⚠ Participants must have one of the following:

- COVID certificate **OR**
- A negative test (antigen **OR** PCR) certificate

WHAT IS A COVID CERTIFICATE?
The COVID certificate is a means of documenting a vaccination, a cured infection, a negative test or a positive antibody test.

[1] Federal Office of Public Health FOPH, 2022, Coronavirus: Measures and ordinances https://www.bag.admin.ch/bag/en/home/krankheiten/ausbrueche-epidemien-pandemien/aktuelle-ausbrueche-epidemien/novel-cov/massnahmen-des-bundes.html

List of participants

Title	First name	Last name	Profession
Mr.	Stefan	Germann	CEO, Fondation Botnar
Dr.	Aline	Cossy-Gantner	Chief Learning Officer, Fondation Botnar
Mr.	Zur	Oren	Partnerships Coordinator, Fondation Botnar
Ms.	Charlotte	Warakaulle	Director of International Relations, CERN
Dr.	Ana	Godinho	Head of Education, Communications and Outreach, CERN
Dr.	Sascha	Schmeling	Head of Teacher and Students Programmes, CERN
Dr.	Markus	Nordberg	Head of Resources Development, CERN
Ms.	Emma	Sanders	Head of Exhibitions, CERN
Mr.	Patrick	Geeraert	Leader of CERN Science Gateway Project, CERN
Mr.	Jens	Vigen	Secretary-General of the International Union of Pure and Applied Physics, CERN
Mr.	Max	Gantner	Student
Mr.	Marius	Torsheim	Student
Mr.	Maksimilian	Melo	Student
Ms.	Makula	Muwanga-Ssevume	Student
Ms.	Vanya	Saksena	Student
Mr.	Mutong	Qi	Student

To contact facilitators

For any questions or emergencies, you can directly contact:

1. Mr. Oday Darwich on 00.41.76.753.92.03 or;
2. Ms. Dima Hamze on 00.41.77.243.43.67

List of facilitators and assistants

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How to access the workshop space (car, public transport)

- The place: The Hive Innovation Lab
- The address: Click on Rte du Nant-d'Avril 150, 1217 Meyrin
- Itinerary: Click on Itinerary to The Hive

By Car from CERN

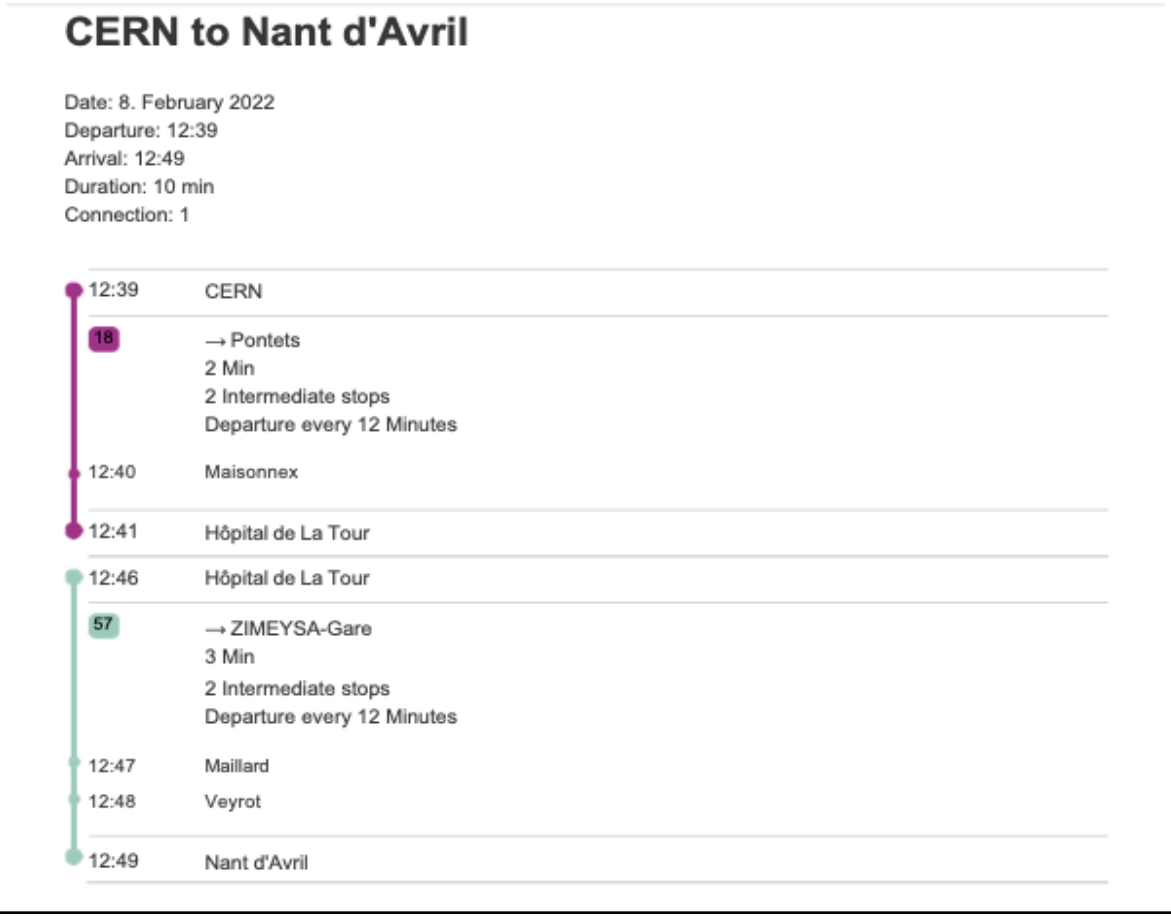
How to reach the free parking lot

By public transport: The stop **Nant d'Avril** of bus 57 is located 3 minutes from The Hive

1. From **CERN** stop take tram 18, direction Pontets, to **Hôpital de La Tour** stop. Then take bus 57 from **Hôpital de La Tour**, direction ZIMEYSA-Gare to **Nant d'Avril** stop (check picture below for itinerary)

2. From **Genève-Cornavin** train station take tram 18, direction CERN, to **Meyrin Village** stop**.** Then take bus 57 from **Meyrin Village,** direction ZIMEYSA-Gare to **Nant d'Avril** stop (check page 7 for itinerary)

3. From **Genève-Cornavin** train station, take Léman Express L5, direction La Plaine, to **ZIMEYSA.** Then take bus 57 from **ZIMEYSA-Gare,** direction Genève-Aéroport-Terminal to **Nant d'Avril** stop (check page 8 for itinerary)



CERN to Nant d'Avril

Date: 8. February 2022
Departure: 12:39
Arrival: 12:49
Duration: 10 min
Connection: 1

12:39	CERN
18	→ Pontets 2 Min 2 Intermediate stops Departure every 12 Minutes
12:40	Maisonnex
12:41	Hôpital de La Tour
12:46	Hôpital de La Tour
57	→ ZIMEYSA-Gare 3 Min 2 Intermediate stops Departure every 12 Minutes
12:47	Maillard
12:48	Veyrot
12:49	Nant d'Avril

Gare Cornavin to Nant d'Avril (Via Tram)

Date: 8. February 2022
Departure: 12:20
Arrival: 12:49
Duration: 29 min
Connection: 1

12:20	Gare Cornavin
18	→ CERN 18 Min 11 intermediate stops Departures every 12 Minutes
12:22	Lyon
12:24	Poterie
12:25	Servette
12:26	Vieusseux
12:28	Bouchet
12:30	Balexert
12:31	Avanchet
12:33	Blandonnet
12:35	Jardin-Alpin-Vivarium
12:36	Bois-du-Lan
12:38	Meyrin-Village
12:45	Meyrin-Village
57	→ ZIMEYSA-Gare 4 Min 4 intermediate stops Departures every 12 Minutes 29 - 30 Minutes
12:46	Hôpital de La Tour
12:47	Maillard
12:48	Veyrot
12:49	Nant d'Avril

Genève to Nant d'Avril (Via Léman Express L5)

Date: 8. February 2022
Departure: 12:18
Arrival: 12:38
Duration: 20 minutes
Connection: 1

12:18	Genève
	→ La Plaine 8 Min 3 Intermediate stops Departure every 30 Minutes
12:22	Vernier
12:24	Meyrin
12:26	Zimeysa
12:26	Zimeysa
Marcher	111 m, 2 Min
12:28	ZIMEYSA-Gare
12:35	ZIMEYSA-Gare
57	→ Genève-Aéroport-Terminal 3 Min 4 Intermediate stops Departure every 30 Minutes
12:36	Les Maladières
12:36	Bergère
12:37	Pré-de-la-Fontaine
12:38	Nant d'Avril

Pre-reading

CERN

About CERN

CERN[2] helps uncover what the universe is made of and how it works. They do this by providing a unique range of particle accelerator facilities to researchers, to advance the boundaries of human knowledge.

What are CERN's goals?

Beyond science, CERN also aims to:

- Be a politically neutral voice for science, advocating investment in fundamental research and evidence-based policy;
- Build further links with industry in terms of the transfer of knowledge from CERN to industry;
- Train a new generation of scientists and engineers;
- Inspire and nurture scientific awareness in all citizens.

What is CERN's mission?

The Laboratory, established in 1954, has become a prime example of international collaboration.

CERN's mission is to:

- Provide a unique range of particle accelerator facilities that enable research at the forefront of human knowledge;
- Perform world-class research in fundamental physics;

[2] CERN Homepage, 2022 https://home.web.cern.ch/

- Unite people from all over the world to push the frontiers of science and technology, for the benefit of all.

CERN Science Gateway

CERN's new flagship project for science education and outreach

About CERN Science Gateway

As part of CERN's mission to educate and engage the public in science, and to share knowledge and technology with society, CERN is launching the Science Gateway, a new hub for scientific education and outreach. The purpose of the project is to create a hub of scientific education and culture to inspire younger generations with the beauty of science. Aimed at engaging audiences of all ages (~5 to 105+ years!), the Science Gateway will include inspirational exhibition spaces, laboratories for hands-on scientific experiments for children and students from primary to high-school level, and a large amphitheatre to host science events for experts and non-experts alike.
Science Gateway will be an integral part of the CERN site in Geneva and stand alongside the visit circuit to the research facilities.

CERN has attracted increasing numbers of visitors every year (150 000 visitors in 2019) with an estimated 300 000 requests received. Of the visitors, 60 percent are high-school students from across the world. All the education and training activities are over-subscribed. This is a clear sign of the great interest in science and technology and the key role that CERN plays in inspiring the younger generations especially.

Science Gateway will highlight the crucial role that science can play in:

- Pushing back the frontiers of human knowledge (the importance of fundamental research);
- Driving technology and innovation societal benefits and impact on people's everyday lives;
- Promoting peaceful collaboration between the peoples of the world.

Science Gateway is an ambitious project for education, training and outreach targeting the general public of all ages.

Science Gateway is also a source of inspiration for the general public, that helps nurture passion for scientific knowledge, and encourages young people to embark upon careers in Science, Technology, Engineering and Mathematics (STEM).

Fondation Botnar

About the foundation

Fondation Botnar[3] is a Swiss philanthropic foundation working to improve the health and wellbeing of young people living in cities around the world. Advocating for the inclusion of youth voices and the equitable use of AI and digital technology, the foundation invests in and supports innovative programs and research, and brings together actors from across sectors to create dialogue and partnerships.

Fondation Botnar's headquarters are based in Basel, Switzerland, home of the life sciences. Their work in Switzerland is based on cutting-edge research and digital related policy conversations.

Focus of the foundation

Fondation Botnar works to enable opportunities and platforms that put the perspectives of young people at the core of their work. Through their funding and support, they support programs, projects and research that include and treat young people with trust, give them the necessary space to contribute to work that affects them, and be treated as equal partners at every stage of the process.

Goal of the foundation

The main goal of Fondation Botnar is to transform cities by creating inclusive urban environments and systems that are truly fit and ready to support the health and wellbeing of young people who live in them. Fondation Botnar champions and invests in the transformational power of AI and digital technology to create inclusive cities, always ensuring they are being built and deployed responsibly and equitably, with human rights at their centre. By striving to include young people as equal partners at every stage, Fondation Botnar works to create opportunities and platforms for them to take an active role in shaping the future of the city systems that support their health and wellbeing. The focus of the foundation is on three key areas: cities fit for young people, AI and digital for an equitable future, and meaningful youth participation.

Geographical focus of the foundation

Fondation Botnar only fund projects in low- and middle-income countries[4], with a strong focus on the following countries: Romania, Tanzania, Colombia, Ecuador, Ghana, Senegal, India (Odisha or Rajasthan), Morocco, Egypt, Indonesia, and Vietnam — with

[3] https://www.fondationbotnar.org/
[4] Check Annex 1 for low- and middle-income countries

a specific interest in projects that focus on emerging urban environments as well as on AI and digital solutions.

The selection of priority countries is based on the following criteria:

1. Children and young people's needs with regards to health and wellbeing
2. Digital networking and innovation preparedness
3. Government preparedness for sustainable implementation and scaling of proven solutions
4. Influence of the country on the region
5. Special attention is given to medium-sized, rapidly growing cities ("secondary cities")

Long term outcomes of the foundation

Research breakthroughs	Stronger households	Connected communities	Better cities
Research breakthroughs lead to new digital solutions that can be tested and deployed in secondary cities in order to be scaled up globally.	Adolescents and households access information, self-help guidance, referral advice and change health seeking behaviours.	Community actors are better connected, more efficient, coordinate across multiple sectors and tailor services for child and adolescents sustainably.	Cities become socially and technologically smart by using digital data and AI to coordinate across sector services to inform decisions and policies.

Low Middle Income Countries

What are LMICs?

LMICs or “Low and Middle Income Countries” means the countries identified by the Organisation for Economic Co-operation and Development (or “OECD”) as having low-income or middle-income economies, as may be updated from time-to-time by the OECD. The World Bank classifies the world's economies into four groups, based on gross national income per capita: high, upper-middle, lower-middle, and low income countries. Lower middle-income economies are those with a GNI per capita between $1,046 and $4,095.

Today, more than half of the world’s population is under the age of 30, with 90% of them living in low- and middle-income countries. Despite being the largest generation of young people in history, their basic human rights to representation and participation are not being met, often left out of decision making and without the opportunity to drive changes in the city systems they live in — especially within marginalised groups.

Education in Low and Middle Income Countries

According to the World Bank report *Learning for All - Education Strategy 2020*, far fewer children in developing countries are now out of school compared to the previous decade, thanks to more effective education and development policies and sustained national investments. The number of out-of-school children at primary school fell from 106 million in 1999 to 68 million in 2008. Even in the poorest countries, average enrollment rates at the primary level have surged above 80 percent and completion rates, above 60 percent. Between 1991 and 2007, the ratio of girls to boys in primary and secondary education in the developing world improved from 84 to 96 percent, with even larger gains in the Middle East and North Africa and in South Asia. Governments, civil society organisations (CSOs), communities, and private enterprises have contributed to this progress by building more schools and classrooms and recruiting teachers at unprecedented levels.

Annex 1

List of Low and Middle Income Countries

This is a list of countries with low-income or middle-income economies. The Organisation for Economic Co-operation and Development (OECD) compiles this information and revises it every three years.

Afghanistan	Haiti	Saint Helena
Albania	Honduras	Samoa
Algeria	India	São Tomé and Príncipe
Angola	Indonesia	Senegal
Antigua and Barbuda	Iran	Serbia
Argentina	Iraq	Sierra Leone
Armenia	Jamaica	Solomon Islands
Azerbaijan	Jordan	Somalia
Bangladesh	Kazakhstan	South Africa
Belarus	Kenya	South Sudan
Belize	Kiribati	Sri Lanka
Benin	Democratic People's Republic of Korea	Saint Lucia
Bhutan	Kosovo	Saint Vincent and the Grenadines
Bolivia	Kyrgyzstan	Sudan
Bosnia and Herzegovina	Lao People's Democratic Republic	Suriname
Botswana	Lebanon	Syrian Arab Republic
Brazil	Lesotho	Tajikistan
Burkina Faso	Liberia	Tanzania
Burundi	Libya	Thailand
Cabo Verde	North Macedonia	Timor-Leste
Cambodia	Madagascar	Togo
Cameroon	Malawi	Tokelau
Central African Republic	Malaysia	Tonga
Chad	Maldives	Tunisia
China (People's Republic of)	Mali	Turkey
Colombia	Marshall Islands	Turkmenistan
Comoros	Mauritania	Tuvalu

Democratic Republic of Congo	Mauritius	Uganda
Congo	Mexico	Ukraine
Costa Rica	Micronesia	Uzbekistan
Côte d'Ivoire	Moldova	Vanuatu
Cuba	Mongolia	Venezuela
Djibouti	Montenegro	Vietnam
Dominica	Montserrat	Wallis and Futuna
Dominican Republic	Morocco	West Bank and Gaza Strip
Ecuador	Mozambique	Yemen
Egypt	Myanmar	Zambia
El Salvador	Namibia	Zimbabwe
Equatorial Guinea	Nauru	
Eritrea	Nepal	
Eswatini	Nicaragua	
Ethiopia	Niger	
Fiji	Nigeria	
Gabon	Niue	
Gambia	Pakistan	
Georgia	Palau	
Ghana	Panama	
Grenada	Papua New Guinea	
Guatemala	Paraguay	
Guinea	Peru	
Guinea-Bissau	Philippines	
Guyana	Rwanda	