



IN CONVERSATION:

WHAT DO I NEED TO KNOW TO GET STARTED?

Key:

GP: Gaël Potter (teacher, André-Chavanne College and Business School, Geneva)

M-A: Maria-Angela (teacher, CEC Emilie-Gourd, Geneva)

GP: Hello, my name is Gaël Poetter and I teach Technology and Environment at André-Chavanne, to secondary school students, collégiens and apprentices for the maturité professionnelle

M-A: Hello Gaël, my name is Mariangela and I teach mathematics and physics at Collège Emilie-Gourd to students from the first to the last year of maturité. Can you tell me something about this project?

GP: This year, in the class of environmental sciences, we were exploring the theme of CO₂ and since Onl'fait was also working on this topic, I was offered to build CO₂ sensors to measure the concentration of CO₂ in the classroom and make the link between the level of CO₂ and ventilation since unfortunately during the COVID pandemic we were told all the time "you must ventilate the classroom, you must ventilate the classroom". So at the same time as learning about CO₂, we put it into context by developing something useful for the school, meaning a tool to inform teachers and students about when to open windows and ventilate. The objective was to deal with these two themes, COVID and CO₂ by building an object with the students.

M-A: It's super interesting to be able to relate to what we are going through. Did you work at school? How did you manage to organize this?

GP: At school it wasn't possible because we didn't have the technical expertise nor the tools to build the sensors, that's why we came to Onl'fait association where they have 3D printers to make the case. Then the students did some soldering and programmed the sensors to light up differently based on the level of CO₂ in the room.

M-A: How long did it take?



GP: It took almost a semester, from the moment we introduced the theoretical aspects until the making of the sensors, and the installation in the classrooms. About 10 weeks. It takes time but it also depends on the project you are developing. I think it can be shorter or longer, there is a flexibility in the approach that allows you to adapt the project to your needs. For the students, going out – at least for my students, who are studying business, the environmental class is something that is not really in their DNA and therefore they are not very motivated – so the fact of going out, leaving the school, see other people, visit another place, discuss with adults who are not teachers, etc. is great. Leaving the school is beneficial but it is true that it takes time.

M-A: I find it very interesting what you said about organizing activities outside the school, it can play a role in motivating the students, even for physics and mathematics. Have you met other professionals apart from the staff from Onl'fait?

GP: There were the staff from the Fab Lab indeed, a dedicated team working at Fab Lab Onl'fait. Besides, we had the visit of two researchers from the University of Geneva who work on the theme of CO₂ and came to present their work to the students. Last year we worked on the theme of water and we met researchers from La Maison de la Rivière, an association with their own scientific questions, constraints and needs with which the students did measurements in the field. This project gave us access to the network of Onl'fait and to have exchanges with experts and scientists who are an added value to the project.

M-A: Any other partner involved in the project?

GP: Apart from the scientists that we had the chance to meet, thanks to the network of Onl'fait, we collaborated with the Natural History Museum, the Municipality and the SIG and we are now in contact with the Museum for a project. These exchanges allowed us to open doors and broaden our perspectives, meet people and present the project in other settings.

M-A: Thanks Gaël for this exchange!

GP: Thanks Mariangela and good luck with Onl'fait!

