

# BUILDING LEARNING LABS AND INNOVATIVE LEARNING SPACES

Practical guidelines for school leaders and teachers

## Case study BELGIUM

Lab 21.0. at RHIZO Lyceum OLV, Kortrijk, Flanders



This case study complements the European Schoolnet's publication **"Building learning labs and innovative learning spaces - Practical guidelines for school leaders and teachers"** (2019). Find the full report and other case studies here: [fcl.eun.org/guidelines](https://fcl.eun.org/guidelines)

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## Background and Inspiration

RHIZO Lyceum OLV Vlaanderen (established in 1924) is a co-educational secondary school situated in Kortrijk, the largest city in South West Flanders. It has about 600 pupils (aged between 12 and 18), 60 teachers and 20 support-staff members. RHIZO Lyceum OLV Vlaanderen offers “general secondary education” (and thus could be labelled a “comprehensive school”) and its pupils normally move on to university.

RHIZO Lyceum OLV Vlaanderen forms part of Katholieke scholengroep RHIZO (<http://www.rhizo.be/>), a school group with several campuses on different sites in Kortrijk and the neighbouring town of Zwevegem, offering general education, but also technical and vocational education. This creates many opportunities for collaborative projects within the RHIZO group. The school, and the RHIZO group in general, have a strong focus on educational innovation. The board of directors and the school leaders encourage their staff to follow training courses on innovation and the use of educational technology, to experiment and to propose new ideas and projects.

Tim Vuylsteke, a head teacher, and later Lab 21.0. Project Coordinator, first visited the European Schoolnet Future Classroom Lab (FCL) in May 2013 in connection with the eTwinning project. At the time EUN’s eTwinning coordinator was also an advisor for the Future Classroom Lab. The eTwinning project had an annual ambassadors’ weekend for Flanders and the Netherlands and in 2013 it took place in the FCL in Brussels. During this weekend, Tim was inspired to think that it would be good to set up something like the FCL in his school one day.

He was inspired by the large amount of technology but was, and still is, most intrigued by the set-up of the classroom with lots of space in which the teacher has no specific place. Tim says: *“We get lots of visitors and often they worry about the cost of technology, but we tell them the space is more important as teachers are obliged to teach as a coach in that classroom.”* In September 2014 the board of directors of the school group that the school belongs to started a 1:1 notebook project and a group of different subject teachers were preparing for this. The school leaders realised that they could not just give the laptops out without any preparation and in one of the preparation meetings it was decided to set up a Future Classroom Lab.



## Planning

### Obtaining funding

The original plan was to use the earnings of the school's quiz, around 1,000 to 2,000 euros, as the initial budget, but when this was discussed with the headmistress she encouraged the team to present the idea and a bid for funding to the board. She advised that it was a good time to do this as they were planning the next year's budget. The team used the FCL in Brussels as a model for the bid, partly because there was insufficient time to write a bid from scratch, and Tim says: *"We were lucky, we asked the right question at the right time when the board were open to innovative projects."* The idea was presented to the board, who *"decided to give us a budget and 'carte blanche' to build an FCL."*

### Research and Visits

The school's team were given one year to build their FCL and they started by going to look at examples they could learn from. Five teachers including the head mistress visited Brussels and then in spring 2015 two more teachers attended a three-day course there in preparation for the school's FCL set-up. The course focussed on general technology tools for teaching. The team also visited the school of the Flemish FCL Lead Ambassador, who had already built an FCL-inspired classroom. The school also sought advice from companies who build school furniture and technology companies. Tim describes as a "significant moment" a visit to the local university where the medicine faculty had just opened a study room with screen sharing. The room was not used for teaching at that time but students used it for collaborative work. The university was probably not inspired by the FCL in Brussels but the visit there contributed to the school's thinking and was the start of on-going collaboration which includes sharing ideas and research carried out in the school by the university's department for teaching with technology.

### Drivers and Aims

Tim explained: *"We had an inspection and they told us we were teaching too often in the classic way, speaking all the time and the students not deciding enough."* So key aim was to get teachers to try different approaches in the FCL and to take some of these ideas back to their traditional classrooms. In particular, one objective was to foster more and better collaborative learning. Another aim of the FCL was to prepare teachers for the laptop project in which they were going to have to teach in a different way, involving more of a coaching approach.





### Stakeholders involvement in the planning process

The school hosts a parents' delegation four times a year in which a small group of parents advise the head on school matters. At one of these meetings the ideas for the FCL were discussed and the parents gave some input. In the case of the students, Tim recalls, *"We had a romantic idea about involving them but perhaps the idea seemed too abstract at the beginning. We tried to have a meeting to involve the students but none of them turned up."* His advice to other schools is to select a few students and involve them more proactively at a later stage. Commenting on the effect of everyday realities, Tim noted: *"We only had one year to do everything and to spend all the money, so we just got on with it. We might have focussed more on stakeholder involvement if we had had more time."*

### Commercial partners

During the visits and research, the team spoke to several commercial companies and then selected two companies as partners to help build the FCL. These partners were initially recruited as a result of exploiting personal contacts and local knowledge. One was Ocular, a Belgian company that puts interactive learning into museums and other venues. The president of the school board knew the CEO of Ocular and as a result they worked with the school and gave free advice in the early stages. This made the cost very low for the school and benefited Ocular as selling to schools was a new market for them. The school also partnered with Barco, which has its headquarters very close to the school. Again, as the school was the first school Barco had worked with, their contribution to the project was cheaper because it helped them move into a new market.

## The initial design

The blueprint for the FCL was the result of a process in which the school team shared their ideas with Ocular, describing and providing drawings to demonstrate what they thought it should look like and providing detailed information about the FCL in Brussels. Ocular's designers then developed a design which Tim said *"didn't look like what we had expected but we recognised everything so they did a nice job of taking our information and ideas and turning them into a real classroom."*



## Implementation

### The team

Tim was one of a team of four teachers who were given some non-teaching time to implement the project. He was responsible for most of the administration and acted as the spokesperson. The headmistress was also very involved. She participated in some of the visits the team made, and progress and reporting were faster as she was part of the team, knew what was happening and contributed to the thinking. The school did not use the EUN FCL Toolkit but did use information on the FCL website about the six learning zones. Tim also took part in a European Schoolnet Academy MOOC which he recalls as generally helpful.

### Convincing the teachers

Tim recalls little resistance from teachers to building the FCL. He believes some teachers *"may have thought the money could have been better spent or that the hours of work could have been dedicated to more important tasks,"* but there was not strong opposition. Some teachers were glad that something new was happening but some others were not interested. Tim notes: *"It takes a long time and we will never get every teacher on board but we keep trying... some teachers are afraid of the technology and of losing control."*

The school has found that it takes longer to prepare lessons for the FCL than for the traditional classroom. Tim believes the reason why some technically competent teachers may not use the FCL is this extra preparation time and admits: *“Even I have this problem; you can’t do it all at once and do it well.”*

### **The attitude of IT staff**

The school’s IT coordinator was part of the core implementation team. He is an active user of the FCL with teaching experience and provides technical support for problems teachers cannot solve. Tim remembers: *“He didn’t need convincing, he was as interested and inspired after he visited Brussels as I was.”*

### **Training and support for teachers**

The implementation team demonstrated the technologies to a group of early adopter volunteer teachers first and explained the idea of learning zones. The FCL plans were also presented to the full staff meeting. Later, Teachmeets were organised and teachers were supported when giving their first lesson in the FCL. Co-creation sessions were organised involving teachers, teacher trainers and researchers.

### **Impact on the use of technology throughout the school**

The laptop programme and the setting up of the FCL happened at the same time and are linked, so it is not really possible to be sure how much change can be attributed to the FCL alone.

### **Technical challenges**

The main technology-related challenge was and still is more to do with available time for training and lesson development than with technical issues. For example, although the school does not systematically analyse the lessons delivered in the FCL, it seems that the Create zone is not used very much. This is probably because using video and audio production tools is a big step for many teachers and they need more training in order to be confident enough to incorporate the tools into their teaching. Also, Tim reports that *“we have VR (Virtual Reality) glasses but we haven’t found time to develop many lessons around these yet, although there are some nice apps we could use.”*

### **The physical space, learning zones, lighting and acoustics**

When the FCL was built the result looked very like Ocular’s original design, including the six zones and the special collaboration pods. It was necessary to change the lighting in the Create and Present zones. A new wall was built and some noise-cancelling curtains hung to make these zones more like a studio.

The tiles already installed on the ceiling are quite good acoustically and the school has discovered that the collaboration pods designed by Ocular “create a nice acoustic effect.” Tim explained that “when pupils work together in the pods they have a feeling of privacy and are not easily distracted by what happens around them even though the pods are not fully enclosed. The students in the pods do not distract other students in the areas around them as they might if merely seated at adjoining tables.

Tim noted that *“usually if the headmistress enters a classroom the lesson stops but in the FCL often students don’t even notice her.”*



*Collaboration pods*

### **Impact on space design in other school areas**

There has not as yet been a direct impact on space design in other areas of the school. However, the lunch hall was recently renovated to include a combination of different shapes and heights of tables and this seems to have led to teachers organising collaborative learning sessions in there as it has an FCL feel.

### **Summary of the steps to create an FCL**

- Get the idea.
- Inspire a core group of colleagues.
- Write a plan.
- Convince the people with the money.
- Involve all kinds of stakeholders.
- Make the ideas into something more concrete by visiting and learning from other schools and companies.
- Create your own specific story for your context, although this is partly dictated by partners available.
- Build the classroom.
- Start using it: *“We didn’t have a pilot but made it open to all from beginning. We said just use it even if you don’t use the technologies. We hoped the teachers would be inspired but recognised that this might take time.”*

## Lessons learned from the start-up phase

- You need to consider everything including, figuratively and a bit literally, tearing down the school walls.
- You need to talk to lots of people, internally and especially externally.
- Building an FCL opens up opportunities for collaboration.
- Teachers tend to be confined to the school building but there is so much to learn outside – collaborate with other schools.

## Lab 21.0 now

### Using the FCL

The FCL is used for stimulating self-directed, independent, active and collaborative active learning by students aged between 12 and 18. It is also used for informal meetings of pupils and teachers as well as for experiments, educational research (e.g. by university students), professional development, networking activities, meetings and discussions. The FCL is available to all teachers who wish to use it but it is still the case that not every teacher has used it; two thirds of the school's teachers have taught a lesson in the FCL. Tim observes that "there are still some teachers who don't really think they need to do things differently." The school has tried a number of approaches to convince these teachers to try the FCL:

- They have invited external people to deliver workshops in the FCL with the teachers acting as the students to demonstrate the benefits to them.
- A student carried out a research project including delivering two lessons, one in the FCL and one in a normal classroom and comparing the two. A teacher who hadn't used Lab 21.0. yet was asked to mentor the student and as a result he has starting to use the FCL himself.
- A university researching "How can we help teachers?" organised some co-creation sessions in the FCL which succeeded in involving more previous reluctant teachers.
- The MoE teachers' magazine organises a day to try new things each year and the school linked their own day to this last year, focussed on use of the FCL. They plan to do this again.

The school leaders see the FCL as a key part of teachers' professional development; they share good practice with other schools. Lab 21.0. welcomes many visitors and the equivalent of approximately 15% of a member of staff's time is dedicated to running the FCL including welcoming visitors and helping teachers.

### The technology

The technology currently available in the FCL includes interactive (touch)screens with screen mirroring technology, tablets, GoPro cameras, Lego robots, an HD camera and chromakey used with a green screen, Virtual Reality glasses, and tools that can be used for coding (e.g. drones).





*Use of chromakey and VR technologies*

## Partners

In addition to the original commercial partners Ocular and Barco, the school also worked with the Flanders Microsoft Innovation Center and has received sponsorship from Belgian telecommunications company Proximus. Lab 21.0 is continuously looking for commercial partnerships for showcasing sponsored equipment and wishes to involve other companies, colleges and universities and explore the possibility of “intellectual partnerships” (lectures and workshops in the learning space, company visits, papers and dissertations about research conducted in the learning space, etc.). The aim of these additional partnerships is to help Lab 21.0 to keep up with the latest trends in education and educational technology.

## Impact

### Benefits observed

A long-term benefit of the partnerships formed to build the FCL has been opportunities for the school to get involved in other projects with industry partners. Tim explains: “These have opened lots of doors for us. It can be very difficult for general secondary schools to get industry partners; it is usually easier for technical schools, which industry perceives as more immediately relevant.” One of the school’s industry partners, Barco, has worked with the school several times since they were involved in setting up the FCL. The school involved Barco (and later also other industry partners) in the Design Your City project ([www.designyourcity.be](http://www.designyourcity.be)), which was created by one of the school’s teachers. Also, Barco sometimes still involves the school in new projects, as with the creation of a “mini virtual classroom”, which enables pupils to follow lessons from home.

### Teachers use of technology

Tim reports that teachers are getting more involved in the FCL and in using different technologies and innovative pedagogic approaches. His team is supporting them to design lessons, especially lessons

making more use of existing equipment. Some teachers now have their own projects, e.g. coding, linked to the FCL.

### Impact research

Two university research projects are being carried out in Lab 21.0. and other FCLs in Flanders, further exploring the possibilities, the effects of the use of technology in the classroom and the best ways to support teachers to integrate technology into their practice. Until these projects report, little information on impact is available.



## The future

### Sustainability

There is a concern that the financial situation is tighter now than it was when the FCL was first set up and that the need to replace equipment such as laptops could be a challenge. Current plans to address this include using technologies funded by other projects in the FCL.

### Plans further development

The school has no current plans for further development of the FCL; it believes it is now important to focus on developing the lessons for delivery in the FCL. However, Tim suggests he would welcome efforts to capitalise on the expertise and experiences of the group of labs in the FCL network. This could include a formal meeting once or twice a year. The FCL Ambassadors do a good job but more direct and formal cooperation as part of a community would be very valuable.

### Three pieces of advice for other schools

*"Never be afraid to try to convince your school leaders with a good idea; you never know, you could get lucky or luckier than you expect."*

*"Tear down the walls and learn from other schools, companies and organisations."*

*"Design a plan for implementation: this is an important phase and you need to think carefully about how you are going to do it, what the key steps are and what is right for your school in your circumstances."*

### Information about the publication

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