

In this interview with EuroScientist, Thomas Landrain explains the story of La Paillasse, the open lab he founded in Paris six years ago. He has since developed a platform aiming to do open science by involving academics from across disciplines, engineers, designers and artists as well as curious citizens from around the world. The idea is to cut out the intermediaries and create a much more open way of doing research, enabling to fast-prototype solutions to scientific problems.



Published in [EuroScientist](#) via [SciencePOD](#).

Thomas Landrain interview: short-circuiting research



La Paillasse: fast-tracking innovation with citizens and experts and without intermediaries

Thomas Landrain is the co-founder and president of [La Paillasse](#), an open laboratory based in Paris, France. The main characteristic of his initiative is that it is completely open for anybody to get involved. "That makes it very interesting because the distance between the [people involved] are much shorter," Landrain explains. The objective is to remove the intermediaries between any two actors to be "much faster, much more efficient at delivering scientific projects," he adds.

La Paillasse was born from a frustration [Landrain](#) experienced six years ago when he was still studying synthetic biology. "As a young researcher it was very hard to work with people outside my own institution, outside even the world of academia," he

says, "If I wanted to work on something that was slightly different of the theme of my [research] institute, it would have been difficult." This led him to imagine a different set-up for fast-prototyping of innovative solutions to scientific problems.

Humble beginnings

He [initially opened a laboratory with friends](#) in a squatt, located in the outskirts of Paris. It was entirely open to anybody interested. "Very fast, we had this amazing community, thousands of people who had very various skills. (...) Biologists were a minority. A lots of engineers, for example, people [who] had skills in electronics, in mechanics, in informatics, a lot of designers, artists,philosphers, sociologists," he says.

La Paillasse offers many potentials for [hacking traditional scientific approaches](#). For example, biomaterials are a very interesting example of what can happen in such a open lab. This is "because you need skills in biology, in design and in engineering," he explains, "and to gather that diversity of skills it's pretty hard normally." Working with people from different disciplines led to the development of a different kind of ink grown by bacteria, as a more eco-friendly alternative to ink produced by the petrochemical industry. This resulted to the creation of a [start-up calld PILI](#) focused on the biofabrication of colours produced by microorganisms.

Open science

Since its beginning in a Paris suburb, La Paillasse has now moved to a large office space at the centre of the capital provided by the Paris Mayor. Today, its approach has evolved and its business model is based on partnerships using open data and open source. "There is no exclusivity for the partners," says Thomas Landrain.

This approach stimulates greater reproducibility. Anyone from around the world can jump in at any moment in the process of a study, to share their results or suggest a different and better approach. "You don't get access to the results and the data only at the end of the study but you can be part of it," Landrain says, "You can basically co-build everything." In his view, there is a clear advantage: "You don't have to wait until the very end of the publication to be able to [use the existing results]."



Scalability without intermediaries

Conscious of the need to expand the concept on a greater scale, La Paillasse has developed a collaborative work platform permitting decentralised approach to solving scientific problems on a larger scale. In Particular, La Paillasse works with industrial partners, like Swiss pharmaceutical company Roche, on a participatory and open research programme dedicated to understanding cancer using a Big Data approach.

The partners plan to release the second edition of their platform, called [Epidemium](#), in March 2017. "We will [soon] be working much more closely with academic research laboratories. We want them to understand that they can use such a platform as a leader for their research," Landrain explains before adding: "they can ask the questions they are asking in their own lab, except they can ask it in the open."

The idea is to open research outside the labs and to avoid the intermediaries. Landrain concludes: "The way [we] do science could be profoundly changed because you would not necessarily need to be an academic researcher anymore to do research and you can't imagine doing this without such a dematerialised and decentralised platform which is able to monitor in real-time how people are working with each other."

Video editing and cover text Charline Pierre and Lena Kim.

Interview by Sabine Louët, EuroScientist editor.

Photo credit: Remy Bourganel