

# Renaissance 2.0



## **Fab Lab Bilbao**

Open space for creators from all artistic and scientific disciplines

## **Maker Faire Bilbao**

10 years of history at the international creative technology festival

## **International Networks**

We collaborate with over 100 organisations and creation centres in Europe

---

Welcome to the Cookie Factory

We like to  
preserve the past,  
prototype the future,  
and enjoy the  
present

<b>Table of Contents</b>	<b>Espacio Open</b>	Introduction	4
	<b>Fab Lab Bilbao</b>	Maker Ekintzailea Residencies	6
		<ul style="list-style-type: none"> <li>_ Cristina Dezi</li> <li>_ Jose Manuel González</li> <li>_ Varvara Guljajeva + Mar Canet</li> <li>_ Eider Goiria + Iñaki Gondra</li> <li>_ Eduardo Loreto</li> <li>_ José Carlos Flórez</li> </ul>	
		Open Lab	13
		<ul style="list-style-type: none"> <li>_ Joana Schmitz + Laurin Kilbert</li> <li>_ Pol Olory</li> <li>_ DRS 2022</li> </ul>	
		Other programmes Fab Lab Bilbao	16
	<b>Maker Faire Bilbao</b>	10 years of festivals	18
		3D printing workshop with neighbourhood residents	20
		DIY moulds with CandiD Atelier	24
		Blockchain Maker to Market Bootcamp	26
		Inauguration of the Creation Residences	30
		Family workshops	32
	<b>European Projects</b>	T-Factor	34
		Distributed Design Platform	36
		Eureka	37
	<b>Artiach Factory</b>	Welcome to the Cookie Factory	38
		Vintage Bilbao	40
	<b>Visitors, Media, Conferences, and Networks</b>	Visitors	42
		Media	44
		Conferences	45
		International Networks	46
		Who we collaborate with	47

# ESPACIO OPEN

**Located in the old Artiach Factory, Espacio Open is an ecosystem with creative and social projects that have a positive social impact. It operates in the intersection between contemporary culture, open technologies, and social innovation.**

We are one of the first creative initiatives from Zorrotzaurre Creativo, present in the Ribera de Deusto neighbourhood since 2009. Today, the centre acts as a laboratory for multi-disciplinary creation.

Our noteworthy projects include residency programmes to support artists, designers, and makers, the Maker Faire Bilbao International Creative Technologies Festival, and participation in European

projects associated with urban social innovation, such as T-Factor, Distributed Design Platform, and Eureka.

What is more, the cultural center has the Jardín Secreto Bilbao cafeteria, the Vintage Bilbao events where we open the store with more than 500m<sup>2</sup> of vintage clothing every weekend, and weekly cultural events.

---

## Fab Lab Bilbao

Fab Lab Bilbao is the Espacio Open creation centre for digital fabrication and critical use of technology. We encourage different profiles to participate in the social, ethical, and political debates that go hand-in-hand with the increasing omnipresence of technologies in our lives. By blending all kinds of technological tools, we connect amateurs and professionals in horizontal and interdisciplinary fashion, breaking down social, economic, and gender barriers.

We work from a local to an international level, in an attempt to showcase this jewel of industrial heritage, Artiach, with its internal "machinery" in full operation. Espacio Open is a member of some of the main culture maker, hacker, and FabLab-DIY contemporary networks, including the Boston MIT Fab Lab Network and the Maker Faire Global Producers Network. We are also founding members of CREFAB (Spanish Network of Digital Creation and Fabrication) and the regional contact for Burning Man.

Through different projects, we act as a platform to foment the transfer of interdisciplinary knowledge to accelerate and catalyse young talent, empower citizens, and create networks of professionals from different sectors who take action in the urban sociocultural community.



---

## Creative and local entrepreneurship

We are the drivers for the second-hand market Open Your Ganbara. After more than a decade, it has now evolved into Vintage Bilbao, a proprietary clothing brand and weekly event held inside the factory.

We have over 150,000 annual visitors, 14 employees and 2,000 m2 facility space. Through our different lines of action, which include creative residencies, participation in European projects, our schedule of events and training workshops on new technologies, and local economy lines, we work toward positive social change. This is because we believe it is important to keep building a city based on its foundations.

We like to preserve the past, prototype the future, and enjoy the present. Welcome to the Cookie Factory!

[www.espacioopen.com](http://www.espacioopen.com)

---

# FAB LAB BILBAO

---

**Fab Lab Bilbao is the Espacio Open creation and digital culture centre for digital fabrication and critical use of technology.**

Fab Lab Bilbao's creation programmes are mainly focused on creation residencies. These include public Maker Ekintzalea calls, funded through the Basque Government's Fábricas de Creación programme and intended for professional and amateur profiles, Open Lab's by-invite residencies, and other programmes.

The Fab Lab Bilbao creation residencies are intended for people from the world of art, creation, entrepreneurship, engineering, makers, etc., who

have a project related to digital culture. They are designed to accompany artistic creation around the critical use of technology by using the tools and techniques of a Fab Lab.

As a creation laboratory, Fab Lab Bilbao also offers consulting for all kinds of cultural entities to incorporate technological tools into contexts of art and of social innovation, as well as guided tours to learn the possibilities for the future that these technologies provide.

SX Biotech Bodysuit  
<https://espacioopen.com/sx-biotech-bodysuit/>



## SX - BIOTECH BODYSUIT, A SECOND CYBORG SKIN

"A hybrid identity, a cyborg made of unclaimed desires, taboos, and censored affection. It reclaims the liberation of banned, censored sexuality, and seeks to open up a dialogue between the visible and the invisible, the body and its fluids." Thus defines Cristina Dezi her artistic project SX-Poiesis, an artistic investigation that explores sexuality based on biotechnology, hacking, digital fabrication, and DIY.

As part of SX-Poiesis, the artist developed the SX Biotech Bodysuit project at Fab Lab Bilbao. This is a suit made of body fluids, algae, and other biomaterials that explores the idea of creating a new skin with new sensory abilities.

The bodysuit has an electronic layer with a series of sensors that make the suit sensitive to different body reactions like movements, sounds, and temperature changes. The device generates stimuli based on these changes, thereby exploring erotic pleasure based on biotechnology.

Cristina Dezi developed the bodysuit at Espacio Open's Ekintzailea Maker 2022 artistic residencies as part of her SX-Poiesis research, where she also created lingerie pieces made with biomaterials, sensory sexual toys, and research on censure in algorithms.

**"SX - Biotech bodysuit is based on the idea of creating an immersive**



**and multisensory prosthesis that is empowering, queer, inclusive, safe, feminist, and sustainable, fusing biology and technology"**

Cristina Dezi is an interdisciplinary artist and designer with a degree in Fashion Design and

New Textile Technologies and a master's degree in Experimental Animation. By means of a feminist critique, she experiments with biomaterials and wearables, crossing textile research, new media art, sound design, biohacking, and technology.



Flym Stage

<https://espacioopen.com/residencia-flym-stage/>

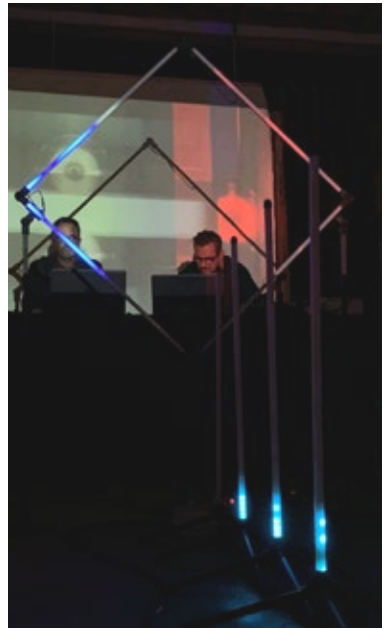
## A LOW-COST INSTALLATION FOR LIGHT SHOWS

Flym Stage is an experimental lighting system fabricated with open-code technologies and low-cost materials. Its creator, José Manuel González, developed this project as part of an electronica and flamenco show, along with musician Enrique Ghares. Even so, this system is designed such that it can be copied by anyone.

**"It consists of creating a light set for the show world, focused on people who do not have technical knowledge on how to use light and want to make avant-garde projects," explains the professor and maker.**

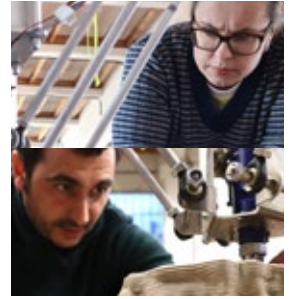
Flym Stage's design is entirely modular and made with very accessible materials. This makes for an LED light installation that is very low cost and can be customised and scaled. "These are LED bars that you can purchase, but I make them with recycled materials, using 3D printing and at a very low cost. This way, you can make 1 bar or 50, depending on the needs of the project, your space, and your creativity."

Under Espacio Open's Ekintzalea Maker residences, José Manuel González developed the first part of this system, using the laboratory's digital fabrication tools. During his stay, he also created the prototype for a spotlight-shaped lighting system. "This is a more sculptural kind of light, made with recycled materials like cardboard, plastic, aluminium and, of course, LEDs." By using hardware and open-code software, this system can grow, including several spotlights controlled by one single device. "Each spotlight has several LED lines inside, so you can play with circles of light that change to create animations," explains José Manuel. The project was presented at the festival for the EAMálaga artistic collectives association and has participated in several collective exhibitions.





## ANCIENT SCULPTURES MADE WITH ARTIFICIAL INTELLIGENCE



Psychedelic Forms is a project that explores the possibilities of Artificial Intelligence in art, created by Varvara Guljajeva and Mar Canet. The artistic duo has created a series of sculptures based on models of ancient figures, transformed by IA algorithms, and fabricated in the local hub with the Jet Clay open-source printer.

**"In our work, we explore technologies at a creative level. How they can inspire us, but also how they are changing our lives"**

The project is based on the classic art of Greek and Roman sculptures, which are transformed by artificial intelligence based on phrases and texts which the artistic duo enters beforehand.

Based on these words, the IA deforms and creates new versions of the sculptures, to finally fabricate them with a ceramic 3D printer. "Each piece is unique, because even if you print copies, the results are always different. Ceramic printing is not exact and depends on many factors like pressure or humidity, so it is never the same piece," explains Mar Canet. "This is

a material that humans have been using for thousands of years. This project is a way to reinterpret these ancestral techniques by means of artificial intelligence."

The Psychedelic Forms ceramic sculptures were made at Fab Lab Bilbao, as part of the Ekintzalea Maker residencies, and presented in Barcelona under the ISEA International Symposium on Electronic Arts 2022.

Varvara Guljajeva and Mar Canet have been working together as artists since 2009. Their projects draw inspiration from the age of information, exploring social changes and the impact of the technological age. The artistic duo has exhibited at MAD in New York, FACT in Liverpool, Santa Monica in Barcelona, Barbican and V&A Museum of London, Onassis Cultural Centre of Athens, Ars Electronica museum of Linz, ZKM of Karlsruhe, and more.





Makinarte  
<https://espacioopen.com/makinarte/>

## MAKINARTE, AN ILLUSTRATING ROBOT



Eider Goiria and Iñaki Gondra are mechanical engineering students. After experiencing the engineering job market, they wanted to enter the world of art through their technical knowledge. During their Ekintzale Maker residency, under the amateur category, they received consulting to create the illustrating robot Makinarte.

Their intent with Makinarte was to use art as a source of expression for their experiences, developing their activity toward the world of service design. Makinarte is a machine that draws geometric 2D figures. The machine is equipped with 4 electric motors and their controllers.

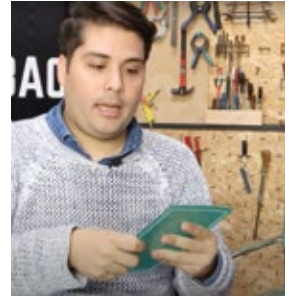
Machine prototype construction:

- Blueprint of the stands for the motors in the FreeCad programme and fabrication with 3D printer.
- Fabrication of the central wood and large pulley in 3D printer.
- Programming using the Arduino UNO plate.
- Discs with CNC with MDF material.
- Construction of the box using MDF material, cutting the pieces with a radial saw.
- Welding electronic repair elements.



Aulkia 22

<https://espacioopen.com/aulkia22-eduardo-loreto/>



## A BAUHAUS CHAIR REINVENTED WITH BIOMATERIALS



What would happen if we joined all the traditional fabrication methods with the latest developments in biomaterials and digital technologies?

Aulkia 22 is an example of this. Eduardo Loreto is a fashion designer and researcher of new materials. He has reformulated fabrication techniques from the early 20th century, restoring Marcel Breuer's S-34 Bauhaus chair to pay tribute to artisan techniques and join them with biodesign. The result is Aulkia 22, a chair that includes the original structure designed in 1937, and the complete structure with a new biomaterial made from red cabbage.

**"I created a material based on a binding agent, red cabbage, and a plasticiser, vegetable glycerine, making it completely biodegradable"**

Thus, the design shows multiple possibilities for this kind of material in industry. "People think that biomaterials cannot be resistant, or that they degrade quickly. But this is not the case; they only degrade when we want them to. This material can remain in perfect condition for years. Then, if you bury it, it will disappear within 90 days."

The chair was created under Espacio Open's Ekintzailea Maker residences and forms part of Eduardo Loreto's project Heterotopia, where he explores the possibilities of biomaterials in fashion and product design. Aulkia 22 was selected as one of the 3 finalist projects under the textile category of the international Isola Design Awards for Milan Design Week 2022.



To construct the new high-resistance fabric, Eduardo Loreto created a special dryer at Fab Lab Bilbao to keep the material alive and in stable condition. As of this point, it went under different processes, including laser cutting to create the pieces, and traditional techniques, such as silk-screen printing and sewing.



Light Waves

<https://espacioopen.com/residencia-light-waves/>

**THE WAVES OF THE CANTABRIAN,  
TRANSFORMED INTO LIGHT**

Light Waves is a project that seeks to transform big data into sensory experiences. This is an audio-visual installation that uses oceanographic data to create a scene with light and sound. Its creator is

Peruvian artist and maker Josecarlos Flórez.

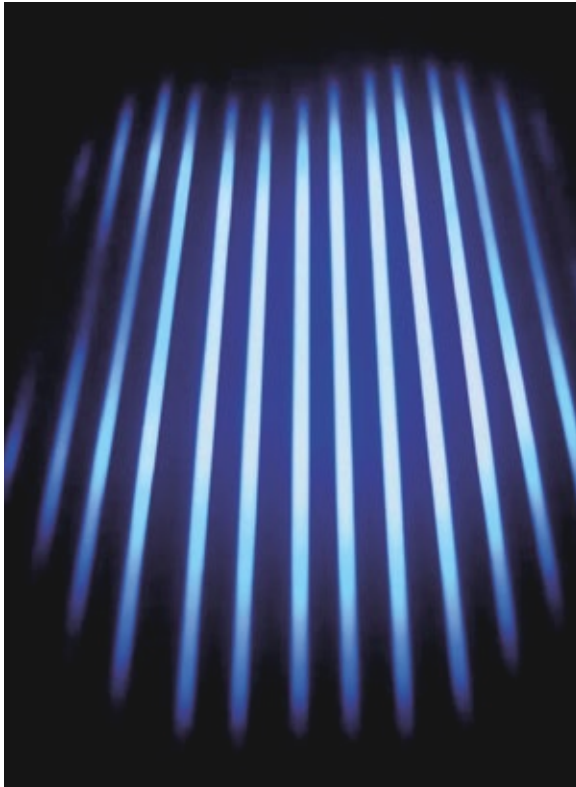
The project, developed under Espacio Open's Ekintzailea Maker residencies, is based on information from buoys

located in the Cantabrian Sea, extracted from the National Harbour Authority's website. Through software developed with open code by Josecarlos Flórez, Light Waves turns these data into light and sound patterns that emit through LED bars. The light structure was fabricated with recycled materials and 3D-printed parts, thereby obtaining a low-cost, open-code installation.

**"Light Waves is an audio-visual installation that illustrates the behaviour of the sea in light and sound, making this an exhibition space," explains the creator. "The intent is to bring mass data from the internet to the general public in a creative way, showing its infinite possibilities."**

Josecarlos works on projects that involve creative programming, sound, robotics, expressive lighting, data visualisation, digital fabrication, the Internet of Things, virtual and augmented reality, and artificial intelligence.

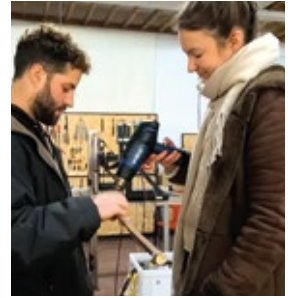
He has participated in art fairs like ARCO (Madrid) and Swab Art Fair (Barcelona) and festivals such as Maker Faire (Bilbao), Sonar+D (Barcelona), and ARS ELECTRONICA (Linz). In 2022, he was awarded the artistic production scholarship by ISEA 2022 (International Symposium on Electronic Art) and his work was added to the Beep Collection (NewArt Foundation).



## Symbiotic Spaces

<https://espacioopen.com/residencia-symbiotic-spaces/>

## SYMBIOTIC SPACES



### Architecture for non-human city inhabitants

Symbiotic Spaces is based on a change in how we understand urban settings, shining the spotlight on different life forms, and not only humans. In response to the question "Who Lives in the City?," this project proposes creating spaces for the other species that also live in our urban ecosystems, such as birds, insects, and plants that are essential for maintaining ecological balance.

The Symbiotic Spaces collective seeks to protect and increase wild urban life by building structures with local biomaterials, using 3D printer technology.

Designers Joana Schmitz and Laurin Kilbert are the drivers behind this project, which came to life in Hildesheim, Germany. As part of the project's development, they both conducted a residency at Fab Lab Bilbao with the aim of learning to build a JetClay open-source 3D ceramic printer. Joana and Laurin received support and expert consulting from other members of the community, such as Javier Pérez Contonente, member of the JetClay collective, and Julián Trotman, resident of Fab Lab Bilbao, to build the printer. They both spent two



weeks in total immersion at our facilities to build the tool in record time.

### Winners of New European Bauhaus 2022

Symbiotic Spaces was one of the winners of the New European Bauhaus 2022 awards, granted by the

European Commission to the most inspiring examples of social transformation. The collective earned this recognition for being a transdisciplinary project that seeks to protect and increase wildlife in urban settings, using open-code technologies and local biodegradable materials to do so.





Pol Olory

<https://espacioopen.com/live-painting-algoritmos-sensibles/>

## LIVE PAINTING WITH SENSITIVE ALGORITHMS



In 2022, he was at Espacio Open conducting a residency by invitation as part of his current project: an interactive live painting installation. This multimedia artist has spent over 15 years working in the sphere of "living art," modifying artistic pieces, spaces, and instruments based on algorithms that give new behaviours to a multitude of objects, ranging from guitars to jewels.

Olory works in the sphere of "living art," a movement that blends digital art with the use of artificial intelligence tools. One of the latest projects he developed and brought to Espacio Open consists of applying algorithms to a guitar so that it changes its sound based on the attitude of the person playing it.

**"It's as if you were dancing with someone, with someone inside the guitar, and depending on what you do, the instrument reacts in one way or another"**

At Espacio Open, Olory also worked with photoluminescent paint to prepare a live painting performance, blending digital technologies and analogical projection systems to draw live on the canvas. His artistic project is linked to La Maison de l'Europe, a centre with which Pol Olory collaborates under Erasmus+ programmes to introduce French students to new methods of creation.

Pol Olory is a multimedia artist who works in the intersection between artificial intelligence, art, music, and low-tech technologies.

---

## “THE ECHOING RIVER” CONNECTS THE ARTIACH FACTORY TO THE RIVER THROUGH SOUNDS

---

Espacio Open was one of the laboratories that participated in DRS2022, the hybrid conference on research in design held in Bilbao in June. For a week, students from the University of the Arts London, Mondragon Unibertsitatea, and Bilbao Bidesign Center worked on developing sound exploration projects. The purpose of the workshop was to create new connections between the Ribera de Deusto quarter and the river through sounds and play.

14 students participated in the laboratory and several prototypes were developed, including:

### **There are People There:**

Two screens that connect both of the river's banks. Sofia Alexiou, Dany García Solano, Elisa Gil, and Maialen Borrero.

### **A place to sit:**

A space to humanise the path on the riverbank. Alastair Steele.



### **Iluntasuna:**

A tunnel of light and sound to create a soundscape. Miren Pascual Beltran de Heredia, Vicki Sun, Eduardo Loreto.

### **Earwave:**

3D-printed ceramic pieces that amplify ambient sounds. Siyuan Li, Olatz Pereda, Nabil Kaoutli Sainz.

### **28 de Julio (28 July):**

Bottles representing the movement of the tides. Sofia Alexiou, Dany Garcia Solano, Elsa Gil, and Maialen Borrero.

### **Hydrophone Fishing:**

Installation with fishing rods

to hear inside the river. John Fass, Ronnie Deelen.

### **Drift:**

Stage with light and sound that leads to the underwater world through mirror play. Dora Álvarez Domínguez, Farah Zia, and Ekain Mendiola Ardanza.

### **Confesionario en la Ribera (Confessional on the Ribera):**

A window through which to hear stories of the island with an in-place narrative video. Markel Crespo Ramos, Nabil Kaoutli Sainz, and Siyuan Li.

## REPAIR CAFÉ BILBAO

Counter to throwaway consumption, Repair Cafés are open, free meeting spaces focused on repairing objects. The intent of these spaces is to promote waste reduction, as well as the exchange of knowledge. In 2022, Espacio Open organised Repair Café Bilbao meetings. Every Friday, people of all ages approached Fab Lab Bilbao to learn to repair appliances as wide-ranging as an electric coffee pot, a robot vacuum, or a 3D printer.

<https://espacioopen.com/repair-cafe-bilbao>



## BAI/NOT



BAI/NOT is a shared project between Álvaro Fierro (Cultumetría) and Jemima Cano (DOOS Colectivo) to investigate how culture prepares us for the artificial intelligence crisis and technological automation.

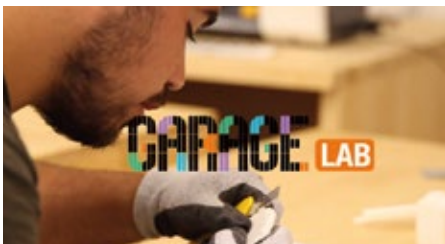
In January 2022, we participated in a debate table with international experts who work in fields ranging from art to technology and from AI to art. All this with a multidisciplinary perspective and the collaboration of Culture Action Europe.

<https://bainot.wordpress.com/>

## GARAGE LAB

In 2022, we launched a Garage Lab edition with the vocational educational training school Peñasal Kooperatiba. At this centre, they are developing a Fab Lab space. Espacio Open provides training for teachers to learn about the fields of digital fabrication and educational possibilities with students during different learning cycles.

<https://fundacionorange.es/jovenes-con-futuro/garagelab/>



## LOTURAK

Under Loturak Festibala, organised by the laboratory Territorios Loturak, Espacio Open collaborated in organising this workshop to create narratives with artificial intelligence. This theoretical-practical activity, which lasted two days, sought to bring technology and artificial intelligence tools over and apply them to the creation of cultural and social narratives, including implementation of practical experiences.

<https://espacioopen.com/taller-narrativas-inteligencia-artificial/>



# MAKER FAIRE BILBAO

---

Halfway between a science fair and an art fair, Maker Faire Bilbao seeks to spark curiosity and inspiration to make the most of technologies from a critical perspective and promoting the principles of open code and the maker movement.

Since the first festival in 2013, Bilbao Maker Faire has been working to bring the latest technologies to the local social network by means of an open and free festival that includes workshops, conferences, project presentations and activities designed both for professionals and for a general audience.

In this 10th edition, we continue to work with the same excitement and objectives: to show cutting-edge technologies and, especially, the possibilities that they provide in different fields. These include art and culture, as well as industry, along with entrepreneurship, health, education, and social innovation.

# 10 years of festivals



Maker Faires are fairs to "celebrate arts, craftsmanship, engineering, science and the DIY movement," as described by their founders, the team behind the North American magazine Make. The first Maker Faire was held in 2006 in San Mateo, California. It gathered nearly 20,000 technology enthusiasts who were very excited to share their inventions and knowledge.

**This maker community has continued to grow exponentially, along with open technologies associated with the do-it-together movement that have opened up to a much broader audience.**

Today, these fairs are held in over 200 cities all around the world under a single shared premise: to promote the creative use of technologies, showing innovative projects, and sharing knowledge openly.

In 2013, Bilbao became a part of this international network with a fair that we have continued to hold every year since then.

## 10 years of Maker Faire Bilbao

Maker Faire Bilbao saw the light of day in 2013 for the first time on the esplanade of the Maritime Museum of Bilbao. Over one hundred makers displayed their creations, with 3D printers, wearables, educational robots, and augmented reality applications. However, those who attended this event will surely remember it for the washing machine orchestra and Karola hacking, where we turned the emblematic crane into a huge zip line.

Over these 10 years, Maker Faire Bilbao has shown how technologies have evolved and how crazy, transgressive inventions have spread so far that they have created new industries. At Maker Faire Bilbao, we have always sought to explore these technologies based on fun and a desire to share knowledge. We have tuned skateboards with electronics and LEDs, fabricated low-cost submarines and drones, created interactive garments with sensors and instruments made from fruit, and experimented with DIY biology possibilities, in addition to a whole host of other things. Every year, we have organised free, open workshops on creative technologies to spark interest in STEM professions for young girls, and we are especially excited that some of these participants still remain associated with Maker and today are professionals in technological sectors. Maker Faire Bilbao has hosted pioneers in the open technology field like David Cuartielles, cofounder of Arduino; soft robotics researcher Adriana Cabrera, creator



of humanoid robots Gael Langevin; Shuyan Zhou from Sseed Studio Shenzhen; co-director of Little Devices Lab at MIT, Boston, José Gómez Márquez; creator of Prusa3D, Josef Prusa; Sabrina Merlo, senior director at the Jacobs Institute for Design Innovation at UC Berkeley, and Meghan Rutigliano, associate director of Burning Man Project, and so many more.

We have reached this 10th year of Maker Faire Bilbao surrounded by projects that continue to open up new opportunities in a huge number of sectors. We also continue to defend the importance of education on the possibilities of technology based on play and fun, nurturing the imagination of the makers of the future. <https://bilbao.makerfaire.com/>

# 3D printing neighbourhood residents

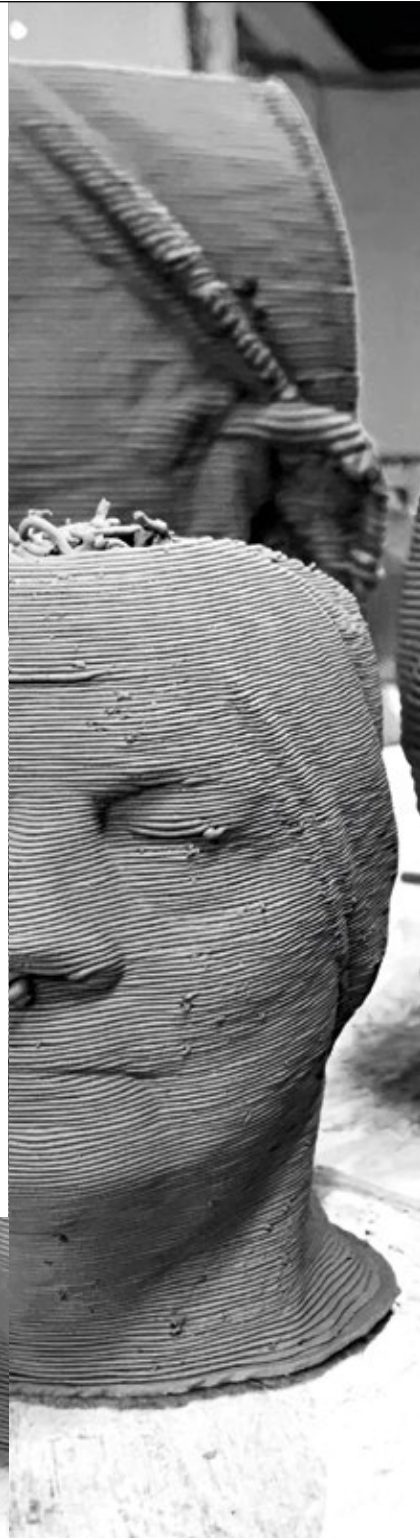
Francis and Rosi have spent their lives making biscuits. They both worked for over 50 years as biscuit makers at Artiach and spent a good portion of their lives at the factory that is home to the Espacio Open cultural centre.

Another character who was essential in the history of this great building is Chamorro, who took care of maintenance for decades. Chamorro witnessed its transformation from a cookie factory to industrial workshops for craftsmen, carpenters, tailors...and then the cultural initiatives that breathed new life into the neighbourhood.

The workshop "Imprimiendo en 3D a los y las vecinas del barrio (3D Printing Neighbourhood Residents)" sought to showcase these people and their important role by using digital fabrication tools.

This workshop, which was divided into two phases, provided theoretical and practical immersion into scanning, modelling, and 3D printing technologies with a ceramic printer. The end goal was to immortalise these illustrious residents of Ribera de Deusto.

<https://espacioopen.com/workshop-escaneo-vecinas/>





# Introduction to scanning and the history of the factory

During the first part of the workshop, attendees were introduced to digital fabrication technologies and fab labs and then learned the basics of 3D scanning. This kind of technology has been democratised in recent years, so with a device that costs less than 1,000 euros, it is possible to scan figures in 3D and then work with them. While using these tools, workshop participants were able to try scanning each other to understand how they worked, guided by engineer and fab lab expert Ferdinand Meier. As of this point, they scanned several neighbourhood residents who dropped by.



## From the screen to ceramic sculpture

The second phase of the workshop was devoted to ceramic printing, a process conducted with the open source JetClay 3D ceramic printer. The participants carried out the entire fabrication process, starting by kneading the clay and preparing it and then loading the printer's toners. With the help of Julián Trotman, industrial designer and co-founder of the digital fabrication and craftsman project Godot Studio, workshop attendees also learned how the software that controls the printer works and began the printing process.

For an entire weekend, the Jetclay printer was working to create busts of the residents in a process open to the public. Everyone who came to Espacio Open could observe how the ceramic sculptures were being created. Finally, and to close the workshop, the sculptures were placed in emblematic locations in the factory and surrounding area to showcase the role of these individuals and their lives as a part of our neighbourhood's history.



## Francis and Rosi, biscuit makers

At 17, Francis began working at the Artiach Factory. Her ideas was to only stay for 3 months, but she ended up remaining until retirement. 50 years making biscuits on a crew consisting almost entirely of women who became a family. "The work was hard, but I have very good memories, we always supported each other," she explains. Rosi remembers the Artiach building as one of the most important spaces in her life. "It was enormous and lovely, with huge windows and views over the Ribera del Deusto". As they both explain, if the biscuit makers should be known for anything, it is their solidarity and fight to defend labour rights.

## Chamorro, factory maintenance manager

After the Bilbao floods in 1983, the cookie factory moved to Orozko and the facilities were turned into workshops for industrial companies of all kinds. Chamorro started working at the factory in 1984 and acted as manager of building maintenance until he retired. Throughout all this time, he saw how the factory transformed: first, into industrial premises, and then into spaces for cultural and creative initiatives. "It has changed a great deal," he explains. "I must say, I was never bored with you all, I was highly entertained!"

## Igor, neighbourhood resident

A secondary school IT and technology teacher, Igor has lived his entire life in the Ribera de Deusto neighbourhood. He saw the second phase of the Galletera cookie factory when, after the 1983 floods, Artiach moved its facilities to Orozko and the factory was filled with small industries, workshops, and craftsmen. "At that time, there were nearly 100 companies in the factory," he remembers. For Igor, just like many other residents, the building is a very significant element in the neighbourhood. "We have a great feeling of uncertainty regarding the future. For us, it is important to defend the identity and history of the Ribera de Deusto neighbourhood; all residents share this vindication".

People with very diverse profiles participated in this activity, from engineering students to university professors, entrepreneurs, and artist



**Pilar Soberón**, professor at EHU/UPV and artist.  
**Alazne Gómez and Esti Macarulla**, engineering students at Deusto University.  
**Saray Pérez**, M3 Arteko ceramics studio.  
**Naiara Gutiérrez**, engineering student at UPV/EHU.  
**Luis Alciturri and Mertxe González**, secondary school teachers.  
**Inés Jauregui**, researcher at ISS Biocruces Bizkaia.  
**Saray López**, doctorate student, Innoprot.  
**Juan Martínez and Alexis Bulucua**, entrepreneurs  
**Fernando Ruiz**, automobile professional.  
**Iñaki Fernández**, IT.  
**Jorge Bárcena**, researcher at Tecnalia.

# DIY moulds to insulate and decorate walls

Insulating a room is normally an expensive, laborious process that requires a large investment. But at Maker Faire Bilbao, we discovered a wall insulation method that is very

simple and inexpensive. It also gives free rein to creativity and allows for personalised structures that decorate the space.







Pulp is a system with moulds created from paper scraps, designed by French designers Cécile Laporte and Irina Pentecouteau. This solution is based on simple fabrication techniques that can be conducted anywhere. This project falls under the European programme Erasmus+.

Cécile Laporte and Irina Pentecouteau, founders of the CandiD Atelier collective, conducted workshops designed both for professionals and for families with a fun, practical construction game based on DIY and reusing materials.

For a weekend, participants transformed magazines and old brochures into coloured bricks which, when placed on the walls in a room, reduce noise and maintain the temperature. During the session for professionals, people from the university world, creative industries, and technologies participated as they explored the use of digital fabrication tools.

## CandiD Atelier

CandiD Atelier develops a design practise focused on user participation, fomenting the public's active contribution to the design and fabrication of objects. Defending local design and production, which are significant for better cohabitation, CandiD Atelier creates tools and systems that help users to configure a creative project.

<https://espacioopen.com/taller-pulp-candid-atelier/>

## How to make CandiD Atelier Pulp bricks:

### Ingredients and tools:

- > Paper scraps
- > Vinyl paste
- > Cloth
- > Utensils to mix and measure
- > Hand blender
- > Gloves
- > Transparent plastic food wrap
- > Plastic container
- > Dyes for paper
- > Plastic moulds with the shape we want to give the brick (ideally, 3D printed to personalise the shapes)

### Steps:

- 1) Prepare the paper  
Use scraps from magazines, brochures, egg cartons, boxes, etc. Rip them into tiny pieces and soak them in a bowl with water the night beforehand. The next day, squeeze the paper thoroughly to remove excess water and strain with a cloth. Mix the paper with the vinyl paste, 2 spoonfuls for every 500 ml of paper. Use the hand blender to obtain a homogeneous paste.
- 2) Dye  
You can dye the paper to make bricks of different colours with paper dyes, between 15 and 25 drops per brick.
- 3) Mould  
Line the mould with plastic wrap to make later removal of the brick easier. Fill the mould with the paper paste, pushing down so it is properly condensed. Carefully remove from the mould all allow to dry near a heat source (stove or radiator, for example).

# Blockchain Maker to Market Bootcamp

At Maker Faire Bilbao, we conducted a workshop designed to explore the possibilities of blockchain technologies, and especially NFTs, as tools to seek out new ways of funding artistic projects from an ethical and environmentally sustainable perspective.

The use of blockchain technologies, cryptocurrencies and NFTs (non-fungible tokens) has spread in recent years as an appealing possibility to fund digital works, although they have also sparked hesitation and scepticism. The excessive use of energy, along with the speculative nature of cryptocurrencies, has made many collectives, especially open code creators and the maker movement, reticent to use

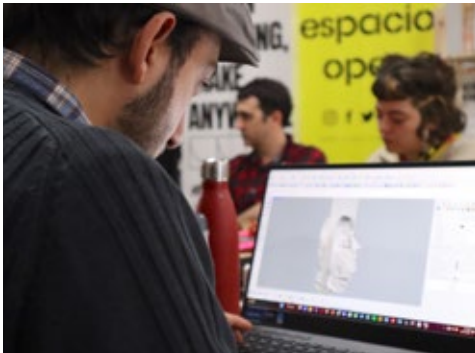
these technologies. Even so, blockchain and NFTs open up new possibilities for financing creative projects in a more democratic and transparent fashion.

Is it possible to use NFTs with physical objects and digital designs from an ethical and sustainable perspective? At the Blockchain Maker To Market Bootcamp workshop, eight creatives learned to use these tools to digitise their projects, with no need for technical knowledge.

---

## Exploring the evolution and practical applications of blockchain in art

The workshop began with an introduction to blockchain technology and the evolution of Non-Fungible Tokens from a critical perspective. As Mar Canet explained to participants, an NFT is a unique, verifiable asset that only exists in the digital world. It can be bought and sold like any other property, even though it has no physical form. This technology allows one to possess a digital good, like an image, a song, or a videogame. Moreover, NFT contracts can include clauses that provide for more ethical compensation of individual



and collective work, because they can establish that a percentage automatically be transferred to the artists every time their work is resold to a new owner.

This is why many artists associated with digital art found a way to finance their work with NFTs. However, at the same time, the sustainability issue (the huge amount of energy necessary for each transaction) sparked a debate in terms of ethical implications. Tezos came about in 2018 in response to this concern. This is an open code blockchain with its marketplace objkt, which has become a regular place for new media artists. This technology has changed the validation mechanism, replacing complex mathematical calculations with a p2p validation process that very significantly reduces the required energy (going from proof of work to proof of stake).



After learning about the evolution, possibilities, and concerns related to this technology, workshop participants learned how to use objkt, the Tezos marketplace, in practical terms. To interact with NFT markets, participants created a crypto wallet and then began exploring the platform's dynamic to buy, sell, and create NFTs.

As observed during the workshop, we are still in the beginnings of NFTs and there are many possibilities left to discover. The key is to think of this tool as something that can be explored to find new ways to pay in the world of open code, especially



to support the main contributors (everyone who openly shares their designs, code, and tutorials). It is obviously easier to apply blockchain and cryptocurrencies to software than to physical objects, but the map still needs to be drawn for the way forward.

Time will tell how much the cryptographic ecosystem will have benefited the open code world. With luck, a new generation of blockchain-based products will be less focused on speculation and more focused on resolving real challenges and social needs.

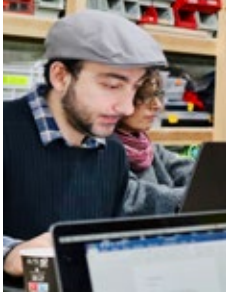
---

### Workshop taught by Mar Canet

The workshop was run by Mar Canet, an artist specialised in digital media. As part of the Varvara&Mar artist duo, she has been working on art projects since 2009 that explore the social impact of the technological age. Mar Canet especially focuses her artistic research on artificial intelligence, kinetics, participation, and digital fabrication. In recent years, Varvara&Mar has conducted research projects on the critical use of NFTs for the art world.

The artist duo has exhibited their artworks at several art fairs and museums around the world, including MAD in New York, FACT in Liverpool, Santa Mónica in Barcelona, Barbican and V&A Museum in London, Onassis Cultural Center in Athens, Ars Electronica in Linz, ZKM in Karlsruhe, and more.

<https://espacioopen.com/taller-blockchain-maker-faire/>



### Yerwant Megurditchian

After working for 7 years as an architect in Los Angeles, Yerwant Megurditchian moved to Barcelona to study a master's degree in advanced architecture at IAAC. He is currently conducting research on 3D-printed modular clay façades based on the

principles of energetic sustainability and thermal comfort. His interest in the blockchain world is focused on exploring how it could be used to distribute products digitally and fabricate them locally.

<https://www.linkedin.com/in/yerwantmeg/>

---



### Idoia Hormaza de Prada

Idoia Hormaza de Prada works in the visual arts field in multiple facets: teaching, research, organising cultural events, and creating contents for specialised media. She is currently conducting a thesis focused on the arts, science, technology, and

philosophy at the Faculty of Fine Arts of the Complutense University of Madrid and is especially interested in understanding the possibilities of NFTs as a means for creating and funding artworks.

<https://thecockpithub.wordpress.com/>

---



### Ricardo Mutuberría

Another participant in the workshop was Ricardo Mutuberría, founder of B100K. This not-for-profit association promotes open, citizen, and community science by developing educational content for all kinds

of audiences. The project aims to drive scientific culture and promote interest in STEAM, especially with youth.

<https://biok.org/>

---



### Irene Ferrer

Student of Industrial Design Engineering and Fine Arts, Irene Ferrer is a product designer with JetClay, an open-source platform that explores the world of 3D printing and ceramics. Irene participated in the Blockchain

Cryptofunding Digital Commons in order to explore NFTs as a tool to fund social and environmental projects. "I would like to apply this knowledge to conduct hybrid projects between digital art and the physical world".

<https://jetclay.com/>

---

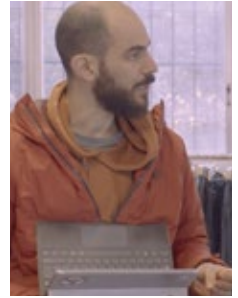
---

## Rachad Salem

Rachad Salem is co-founder of Godot Studio, a computational design, digital fabrication, and craftsmanship studio. He works as a computational designer and digital fabricator at Lowpoly, a project that provides companies with the possibility of

turning all kinds of ideas into products through 3D printing. Rachad Salem's work is focused on exploring the limits of additive fabrication, coming up with new solutions and, as part of his research, is developing an NFT project for 3D ceramic printing.

<https://www.rachadsalem.com/>



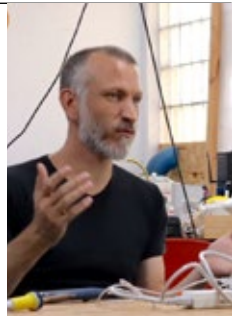
---

## Ferdinand Meier

Ferdinand Meier is a mechanical engineer of German origin. After several years at multinational automobile and aerospace companies, his career took a new tack when he began working with open-code

digital fabrication. He has worked at different fab labs around Europe as laboratory manager, scientific collaborator, and instructor.

<https://www.linkedin.com/in/ferdinandmeier/>



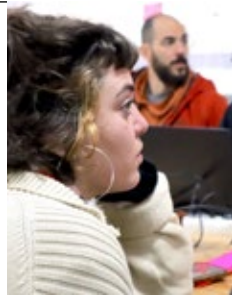
---

## Mónica Pinto Sanz

Mónica Pinto Sanz is a design student at Design Academy Eindhoven. She is especially interested in craftsmanship, ceramics, and how to use these practises to create multi-generational and open gathering places.

Mónica participated in the Blockchain Cryptofunding Digital Commons, organised under Maker Faire Bilbao 2022, spurred by her curiosity to explore new media and tools for creation.

<https://www.linkedin.com/in/monica-pinto-sanz-856bb0140/>



---

## Alfredo Blasco Nuin

Trained as a journalist and after working for several decades in communication, Alfredo Blasco Nuin took a new professional path and decided to work in conceptual art, photography, and illustration. He

currently has the upcycling project Robots de Reciclaje, an initiative where he uses tossed materials to create new robotic sculptures.

<https://www.behance.net/alfredoblasco>



# Inauguration of the Creation Residences

Over the course of 2022, Fab Lab Bilbao has witnessed several projects that explore the possibilities of digital fabrication and new technologies in the art world.

Creators, makers, engineers, and inventors have conducted residencies at our facilities. Here, they had access to tools and expert consulting to carry out their own projects. The initiatives that have come through Fab Lab Bilbao are highly diverse. They show the potential of applying digital fabrication tools like 3D printing and CNC laser cutters with low-tech technologies and open code working methods, the maker philosophy, and "do it with others".

Under Maker Faire Bilbao, 7 projects were presented to the public that were developed at Fab Lab Bilbao, including the Ekintzalea Maker residencies funded by the Basque Government's Fábricas de Creación (Creation Factories) Programme, and Espacio Open's own residencies, Open Lab.



## Interactive projects that explore creative technologies and art.

Aulkia22 is a chair made with biomaterials like leftover red cabbage and inspired by traditional manufacturing shapes; Flynn Stage is a low-cost light installation made with recycled materials to create interactive concerts; SX-Biotech is a suit made with body fluids that also reacts based on the body's vitals, while Light Waves is a light system that reproduces the movements of the waves in the Cantabrian Sea.

The projects presented on inauguration day were:

**Aulkia22**, by Eduardo Loreto, designer and researcher into biomaterials applied to fashion.

**SX-Biotech Bodysuit**, by experimental artist Cristina Dezi, who works in sextech and erotic biotechnology.



**Live Painting** with sensitive algorithms, created by Pol Olory, a multimedia artist who works in the intersection between artificial intelligence, art, music, and low-cost technologies.

**Light Waves**, an installation that collects oceanographic data and transforms them into a visual exhibition, by artist and digital media researcher Josecarlos Flórez.

**Psychedelic Forms**, ceramic works based on models of Greek and Roman sculptures, transformed by Artificial Intelligence and fabricated with 3D ceramic printers.

**Makinarte**, an artist robot that draws geometric figures, built by engineers Eider Goiria and Iñaki Gondra.

**Flym Stage**, a light installation based on smart LEDs created with digital fabrication tools, recycled materials, and open code technologies by creator and maker José Manuel González Martínez.

The creators of these proposals presented their projects at Espacio Open and explained how they conducted their creative processes. They showed the public the potential of blending digital fabrication technologies, innovations with biomaterials, and digital art. Moreover, after the presentations, the artist and digital creator Pol Olory held an open workshop on interactive instruments. During this workshop,

attendees were able to try instruments built with creative technologies, using all kinds of objects to this end: from fruit to flowerpots to giant pumpkins.

Finally, maker José Manuel González and musician and multimedia artist Enrike Ghares, Essenz Quartet, staged a fragment of the electronic flamenco show entitled Flym, using the light installation fabricated at Fab Lab Bilbao.





## Maker Faire Bilbao

electronic circuits work. What is more, at the end, they took a fun souvenir home. It is highly useful for playing pranks at home or at electric appliance stores.

### Firefly lamp

A battery, an LED, and an inclination sensor are all you need to create a firefly lamp. During this workshop, little ones got to explore the world of soldering for the first time and see the possibilities with just a few components.

### DrawDIO

Turning a pencil into an instrument that can draw sound? That's what this DrawDIO workshop was about, an activity to learn about soldering and electronics in a fun way. DrawDIO is a circuit that measures the body's resistance and transforms it into a sound frequency, turning any object into an instrument that creates sound when it touches things.

## Workshops on technologies for all audiences

**Under Maker Faire Bilbao 2022, we conducted a programme with free workshops designed to learn the basics of soldering and electronic circuits in a fun way with educational kits for all audiences.**

### Robot Blinky

The Robot Blinky workshop is an activity for beginners with soldering and creative technologies. Participants learned to solder LED diodes to a robot-shaped board that follows the iconic Maker Faire image.

### TV-B Gone

The TV-B Gone workshop is to build a magical TV remote that can turn off any television. People of every age participated in the workshop, mainly students but also education professionals. They were able to develop their soldering skills and learn how

<https://espacioopen.com/talleres-tecnologias-creativas-familias/>





---

# EUROPEAN PROJECTS

---

Espacio Open participates as a partner in different European projects related to urban innovation, cultural and creative initiatives, and citizen participation. We work alongside over 50 partners all throughout Europe, including universities, technological centres, associations, innovation agencies, and public bodies. Moreover,

we actively collaborate in international networks to drive creative industries and the intersection between art, open technologies, and social innovation.

# T-FACTOR

## The transformative power of "meanwhile"

The European project T-Factor aims to explore the potential of temporary urbanism and integrate it as a transformative tool into urban regeneration processes to achieve more inclusive cities.

T-Factor is based on a paradox that often occurs in large urban regeneration projects, where neighbourhoods remain unfinished and many buildings semi-empty for years while the plan is being developed. Many times, during this "meanwhile," cultural and creative initiatives emerge that make the most of these underused spaces to generate new activities, turning neighbourhoods into centres of cultural and social innovation and creating a new small-scale local economy.

T-Factor seeks to take advantage of the transformative potential of these temporary urbanism initiatives, which in recent decades have emerged in neighbourhoods of many European cities. As opposed to a "hard" urban transformation, only focused on infrastructures, the integration of these initiatives into how a city is built leads us on a path toward more innovative, inclusive, and sustainable urban settings.

Within T-Factor, local pilots are being developed in Amsterdam, Bilbao, Kaunas, Lisbon, London, and Milan, creating temporary urbanism proposals alongside local communities.

The project, which began in 2021 and will end in 2024, is part of the European Commission's Horizon 2020 programme. It consists of 25 European partners, including Camden Town, London, Town Hall of Dortmund, ANCI Toscana, Town Hall of Lodz, the universities University of the Arts London, Aalborg University, Politecnico di Milano, Universitat Oberta de Catalunya, Kaunas Technology University, TU Dortmund University, NOVA University Lisbon, and Tongji University Hong Kong, along with the companies LAMA, LAND Italia, Plusvalue, and LAND Italia. Espacio Open is one of the partners within the local Bilbao consortium, which also includes Bilbao Ekintza and Tecnalia.





---

### Prototypes of temporary urbanism in Zorrotzaurre

The Bilbao T-Factor pilot is being carried out in the Zorrotzaurre post-industrial area. One of its main actions is to start up 3 educational modules in collaboration with higher education centres in the area: IED Kunsthal, Deusto University, and Mondragon Unibertsitatea. Over the course of these modules, students designed and prototyped temporary urbanism solutions in response to 3 great social challenges identified on the island: social integration, generation of a local sustainable economy, and response to climate change at neighbourhood level.

These modules began in October 2022 and ended June 2023 with the presentation of temporary urbanism prototypes designed and built by students. Throughout the entire process, students collaborated with creative initiatives that are working on the island, along with support from international experts from the T-Factor consortium with work meetings, workshops, and conferences over the course of the academic year.

---

### Generating tools and open resources

Through the Zorrotzaurre pilot in Bilbao, the local consortium is also working with other European partners on developing tools to facilitate temporary uses of space that can be applied both in Zorrotzaurre and to the rest of the city.

All the resources, tools, and success stories are available at [www.t-factor.eu](http://www.t-factor.eu) to be reused. They may act as inspiration for driving more integrative and flexible urban regeneration models to tackle the future challenges of cities.

The Zorrotzaurre cultural and creative initiatives that participated in the local pilot are: BoBo Espazioa, Zirkozaurre, Artiatx, Pabellón 6, Piugaz, GureTxoko, Espacio 600, Herrizikleta, GodotStudio, and Studio Petit Muller.

<https://www.t-factor.eu/>

# DDP

## Design globally, produce local

As opposed to globalised production systems, the Distributed Design platform promotes a manufacturing method that reduces the ecological footprint, democratises access to quality products, and gives new opportunities to designers, makers, and fabricators.

Almost all manufactured products around us have travelled thousands of kilometres, sometimes several times, before reaching our hands. The current manufacturing system is based on global distribution of products that reaches illogical levels. This proves entirely unsustainable with the environment and also creates great social inequality. Given this reality, Distributed Design Platform is a European initiative that brings together cultural and creative actors to drive distributed design projects. Espacio Open is one of the actors in this network, through Fab Lab Bilbao.

The Distributed Design Platform was established in 2017, co-funded by the EU programme Creative Europe. It brings together a diverse base of members from cultural and creative institutions, including Fab Labs, cultural organisations, universities, and spaces for creation. During its second call, the platform offered programming and opportunities to support up-and-coming creative profiles.

Distributed Design is a focus that proposes global distribution of value in digital form to then later fabricate the physical products locally. DDP



came about with the intent of offering a platform so that creators can innovate in the design field toward more open, collaborative practises.

### Espacio Open in DDP

As a member of the DDP network, Espacio Open drives activities every year that are focused on bringing digital fabrication technologies to creators and makers so they can apply them to their projects. In 2022, specific training was held for design and art professionals; in this case, blockchain technologies and NFTs. Participants learned how cryptocurrencies work from an ethical perspective as tools to fund open-source projects.

<https://distributeddesign.eu/>

# EUREKA

## training the urban innovators of the future

The complex challenges of cities have given rise to a new professional profile: urban innovators, able to drive more sustainable, participatory, and flexible urban regeneration projects to tackle changes.

Urban innovators are up-and-coming professionals who combine many different disciplines and kinds of knowledge: architecture and town planning, but also skills linked to facilitation and participation, services design, social innovation, and entrepreneurship. This profile is in increasing demand, but there is no specific European training and accreditation. The European project Eureka came about to meet this challenge. It aims to design a new curriculum to train urban innovators.

Espacio Open is one of the 11 partners of the European project EUREKA, which is part of the European programme Erasmus+. Also participating are universities, urban innovation agencies, and public administrations from Bilbao, Romania, Italy, and the Netherlands. The consortium consists of Deusto University, the Iuav University of Venice, Agencia LAMA, Melting Pro, Trans Europe Halles, the municipality of Timisoara, the University of Timisoara, the Casa Blai Association, Hogeschool van Amsterdam, and Sticing P60.



After a conjoint process designing the educational plan, skills, and knowledge that needed to be developed, the first year of the Urban Innovators Training Programme began in October 2022 at the four participating headquarters: Amsterdam, Bilbao, Timisoara, and Venice.

### Urban living lab in Zorrotzaurre

Espacio Open is one of the Eureka project's Urban Living Labs. At our Fab Lab Bilbao, students from the national cluster participated in workshops to learn about Zorrotzaurre's context in depth, in urban, social, and economic terms, as well as the unique characteristics of this post-industrial environment pending a great remodelling plan that will entirely transform the island.

<https://www.eure-ka.eu/>



# WELCOME TO THE COOKIE FACTORY

---

**From an industrial past to a creative ecosystem with alternative leisure and culture ventures**

The Artiach Factory, home to the Espacio Open cultural centre, is one of the most emblematic buildings in the industrial history of Bilbao. It was built in 1921 to house production of the famous biscuit brand, a family company that fitted the new facilities with the most modern technologies of the time. During its period of greatest growth, it employed

800 people, mainly women, and nearly 18 tonnes of biscuits were manufactured per day. Its employees, the biscuit makers, are also a part of the history of the city's fight for workers since, from the very beginning, they were known for their zeal for defending their labour rights and the rights of colleagues at other nearby companies.



After the flood in 1983, Artiach moved to a new location in Orozko and the factory became home to small industrial companies and craftsmen, although most of them closed after the crisis in the 90s. The spaces they left were filled with cultural and social initiatives who decided to carry out their projects in this one-of-a-kind post-industrial environment.

Today, Zorrotzaurre and the Artiach Factory have become an ecosystem that provides alternative cultural and leisure initiatives. At Espacio Open, we organise Vintage Bilbao events every weekend. This is a sustainable fashion project with over 500m2 of vintage clothing. The first Friday of every month, we have Vintage Club, an initiative to display the latest trends in music and creation with live groups, artistic exhibitions, and DJ sessions. Additionally, the third Friday of every month, we open the space to hold Freedom

Jam Sessions. These are improv sessions open to everyone, for people to enjoy music with no pressure and no rules. And, of course, the bar at our cultural centre, Jardín Secreto Bilbao.

---

### **Jardín Secreto Bilbao, a green oasis on the island**

Jardín Secreto Bilbao, the bar at our cultural centre, is a unique space in a post-industrial setting to have a drink and lunch or dinner. Its interior is decorated in a very special way, with welcoming sofas and open spaces, as well as a patio to enjoy the sunny days. We have an extensive menu with dishes to share, pizzas, hamburgers, and our special menu with cocktails, milkshakes, and natural juices prepared upon order.

# Vintage Bilbao

As opposed to fast fashion and throw-away consumption, the second-hand clothing brand Vintage Bilbao believes in more sustainable fashion consumption and promotes the purchase of second-hand clothing.

This brand, which came about in the old Artiach Factory, organises a special shop every weekend with over 500 m<sup>2</sup> of vintage and second-hand clothing. It also has an online shop.

<https://vintagebilbao.com/>

## The origin of Vintage Bilbao

The Vintage Bilbao shop is a shared project between the cultural centre Espacio Open and vintage clothing expert Marta Sans, who has extensive experience in the sector. The project evolved from the Sunday market Open Your Ganbara, organised by Espacio Open, and became the most-visited initiative on Zorrozaurre island for more than a decade, from 2009 until 2020.

Thousands of Bilbao residents opened up their storage closets to give their best-kept treasures a second life. This was the largest circular economy event in the Basque Country, with over 200 tonnes of reused clothing per year. As a result of this experience, Vintage Bilbao came about in late 2021 as a project for sustainable consumption and circular economy. It leaned into the sale of second-hand clothing and shone a special spotlight on unique, quality pieces.

After a bit more than a year, Vintage Bilbao has become a weekly event that opens from Friday through Sunday with over 500m<sup>2</sup> of clothing. This clothing is renewed every time it opens. There is also an online shop with a specific catalogue. Throughout 2022, a total of 3,000 kg of clothing were sold at Vintage Bilbao events. This translates to savings of 75,000 kg of CO<sub>2</sub> for the planet.

## European Week for Waste Reduction Awards

Under the framework of sustainable fashion, Espacio Open was one of the projects selected by Ihobe - Basque Government to represent the Basque Country at the European Week for Waste Reduction (EWWR) Awards for the Vintage Bilbao initiative, as well as for the more than 10 years of history of the Open Your Ganbara market. Moreover, Vintage Bilbao collaborates with other initiatives related to sustainable consumption in fashion, such as the Fashion Revolution Spain project.

## Leisure and vintage clothing events

Under Vintage Bilbao, activities for music, art, and new creators are held. Once per month, Espacio Open holds Vintage Club events, along with open Freedom Jam Session music improv sessions, all free of cost of entry.





---

# VISITORS, MEDIA, CONFERENCES, AND NETWORKS

---

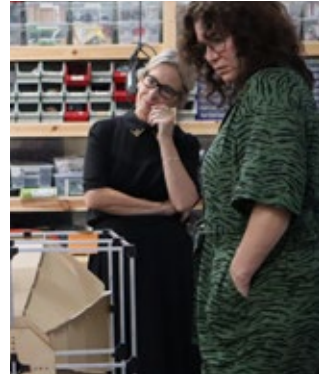
During its 14 years of history, Espacio Open has woven multiple networks, both locally and internationally. It has become a gathering place and leader for a multitude of projects related to culture, social innovation, technology, education, and urban transformation.

Over the course of 2022, many media outlets have visited to discover the alternative cultural and leisure initiatives we provide at the old Artiach Factory. Moreover, we have continued to work as a network with international agreements, some of them with a long history like Maker Faire Global Producers Network, the laboratory network Fab Lab of Massachusetts Institute of Technology, and Burning Man Project, along with others that are more recent, like New European Bauhaus. Our cultural centre is open to every kind of public, with special emphasis on collectives and communities around the world in education, art, and creative industries.

# Visitors

At Espacio Open, we design programmes and educational experiences to understand science and technology through exploration. In 2022, we received visits both from students (local, national, and international) and similar spaces for creation, such as public administrations, companies, and political representatives.

<https://espacioopen.com/visitas/>



---

## UAL

Visit from the research team at the University of the Arts London, interested in learning about Espacio Open's management model and the different project lines we have underway. September 2022.

---

## BBDW2022

Lisa Declercq and Stijn Debaillie, representatives of the public Belgian agency Design Regiok, which works to boost cultural entrepreneurship, visited Espacio Open during Bilbao Bizkaia Design Week 2022, November 2022.



---

## IAAC

Visit from students and teachers from IAAC - Instituto de Arquitectura Avanzada de Catalunya (Institute of Advanced Architecture of Catalonia) to discover Fab Lab Bilbao's projects and the potential of open digital fabrication tools for design and architectural research, April 2022.



---

## IPARRALDE

The team from Iparralde Town Hall made the most of their visit to Bilbao to come to Espacio Open and discover the projects we have underway, especially the resident creations at Fab Lab Bilbao, May 2022.



## NANTES ECOLE

Visit from students from Nantes École as part of the workshops organised by the Institute of Leisure Studies of Deusto University, which aim to learn about cultural and creative innovation initiatives, April 2022.



## YOLANDA DÍAZ



Visit from Yolanda Díaz, Minister of Labour and Social Economy of the Government of Spain, to discover Fab Lab Bilbao and Espacio Open as part of her visit to the cultural and creative ecosystem of Zorrotzaurre, September 2022.

## COMBUSTIBLE

The French association Combustible offers spaces to artists and cultural entrepreneurs. Its leaders visited Espacio Open to explore possibilities for collaboration to drive creative proposals, November 2022.



## DELEGACIÓN CUBANA

Visit from the Cuban delegation interested in learning about how Fab Lab Bilbao works during a trip coordinated by Tecnalia. The purpose of this trip was to launch a Fab Lab network in Cuba, June 2022.



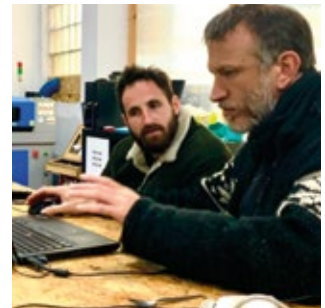
## KEDGE ARTS



Visit from students in the master's degree of Art Management and Creative Industries at the French school KEDGE Arts as part of their educational curriculum to learn about the management models of innovative cultural companies, May 2022.

## MAXIME ZAÏT

Visit from Maxime Zaït, co-founder of the temporary urbanism association Communa in Belgium, and member of the European temporary urbanism network STUN, as part of his tour of centres that work in social, urban, and artistic innovation around Europe, February 2022.



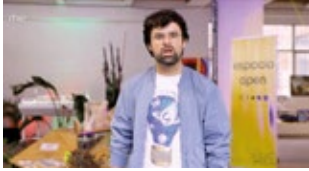
# Media coverage

<https://espacioopen.com/apariciones-en-medios/>

## Órbita Laika TVE, December 2022

The science education programme Órbita Laika by TVE visited Espacio Open to learn about the creative technology projects we conduct at Fab Lab Bilbao.

<https://www.rtve.es/play/videos/orbita-laika/hazlo-tu-mismo/6749612/>



## El Correo

The newspaper El Correo spotlights Jardín Secreto Bilbao as a special nook in Bilbao for a drink, along with the cultural and leisure initiatives offered by Espacio Open.

<https://www.elcorreo.com/bizkaia/moda/>

## Eitb Irratia November 2022

Euskadi Irratia came to learn about the circular economy project Vintage Bilbao and the events we hold every weekend.

<https://www.eitb.eus/>

## La mecánica del caracol EITB, November 2022

On the La mecánica del caracol programme, Radio Euskadi broadcast the creative technologies festival Maker Faire Bilbao, highlighting the projects that blend art and digital fabrication.

<https://www.eitb.eus/>

Visitamos la Maker Faire Bilbao. Cómo conciliar digitalización y sostenibilidad. Peces en aguas venenosas



## Periódico Bilbao Bilbao Town Hall, December 2022

### "Hacen falta humanistas digitales"



Bilbao Town Hall's newspaper dedicated a space in its paper version to discuss Maker Faire Bilbao and the importance of sharing creative technologies.

<https://www.bilbao.eus/>

## El Periódico - Viajar March 2023

El Periódico's magazine Viajar highlights Espacio Open as a place to discover for travellers who want to see an alternative Bilbao, beyond the tourist attractions.

<https://viajar.elperiodico.com>

## Nos echamos a la calle EITB, March 2023

EITB's programme Nos echamos a la calle came to discover the new Vintage Club initiative, the second-hand clothing event, and the artists who participated in this edition.

<https://www.eitb.eus/>

## Deia March 2023



The newspaper Deia devoted a report in its paper edition to the Artiach Factory, discussing how this emblematic space has become an ecosystem for creative projects with social impact.

<https://www.deia.eus/bilbao/2023/03/19/vida-late-fabrica-6583368.html>

### La vida late en la fábrica Artiach de Bilbao

En agosto, después de una década y a las 100, los Artiach celebran su aniversario y también conmemoran el inicio de su actividad y gestión de residuos. Hoy el espacio Artiach sigue siendo una de las grandes iniciativas de Bilbao.



# Conferences

<https://espacioopen.com/blog/>

---

## Kultura eta Sormen Topaketak 2022

Espacio Open participated in the event at Bilbao de Kultura eta Sormen Topaketak "Colaborando en tiempos convulsos", organised by the Asociación Vasca de Agencias de Desarrollo (Basque Association of Development Agencies), along with Bilbao Ekintza, Getxolan, Meatzaldea, Urola Kosta, Oarsoaldea Garapen Agentzia, and Bidasoa Aktiba. The conference was focused on building networks amongst regional players who work in CCI's.



---

## Bilbao Bizkaia Design Week 2022. Workshop: ¿Qué Podemos Hacer Juntas? (What Can We Do Together?)

We participated in the conference ¿Qué podemos hacer juntas? (What Can We Do Together?), under BBDW 2022 and designed to learn about experiences and reflect to **improve the design and creativity ecosystem in Bilbao-Bizkaia**. ¿Qué podemos hacer juntas? was an event to continue cultivating a feeling of belonging and co-responsibility in terms of articulation and sustainable development of our design and creativity ecosystem.

Espacio Open was a part of the **cross-cutting work groups** for the collaborative construction of this new plan, whose purpose is to act as the strategic base to draw up future cultural policies in Bilbao.



---

## Álava culture forum

In November 2022, the Álava Culture Forum was held. Landscapes to inspire, two days of workshops for cultural and creative agents to facilitate **knowledge revolving around experiences** had in other regions and promoting **debate between professionals from different contexts**. The workshops were held at Artium Museoa, organised by the Provincial Council of Álava and Vitoria-Gasteiz Town Hall.

---

## Conference with T-Factor and urban innovation agents in Friche La Belle de Mai

As part of the European T-Factor project, in September 2022, we participated in a conference with all the other members of the project in Europe and agents associated with urban innovation in the public, private, and citizen sphere. The conference was held in the emblematic Friche la Belle de Mai space, an old factory turned into a cultural centre located in Marseille.

---

## Culture strategic plan 2023-2033

Over the course of 2022, we participated as a cultural agent within the active listening process implemented by Bilbao Town Hall to draw up the Strategic Culture Plan for Bilbao 2023-2033.



# International Networks

We are part of international networks that support boosting creative industries:

## Maker Faire Global Producers Network, since 2013

We belong to the global Festivals Maker Faire producers network and have participated in the Maker Faire Global Producers meetups since 2012.

<https://makerfaire.com/>



## New European Bauhaus, since 2021

Through the Fab Labs network and the Creative Europe Distributed Design project, Espacio Open is a partner of the New European Bauhaus, a European Commission initiative to boost design and culture as a tool for transformation.

<https://new-european-bauhaus.europa.eu/>

beautiful | sustainable | together



#NewEuropeanBauhaus 

## Fab Lab network of laboratories for the Center for Bits and Atoms of the Massachusetts Institute of Technology in Boston, MIT.

Red de los laboratorios Fab Lab a nivel internacional. Además de tener nuestro propio Fab Lab inscrito a la red, asistimos a los diferentes encuentros globales Fab Lab Conferences.

<https://www.media.mit.edu/>



**FAB LAB  
BILBAO**



## Burning Man

We are the regional contact in the Basque Country for this global network and have participated in different editions with our own projects, in collaboration or with the support of the organisation in Nevada, Lithuania, Sweden, Spain, and Denmark.

<https://burningman.org/>



## Crefab

Espacio Open es miembro fundador de Red Estatal de Centros de Creación y Fabricación digital. Junto a otros Fab Labs y Makerspaces estatales.



---

## Who we collaborate with



---

## Staff

**Nerea Díaz**, Founder and Director of Espacio Open, **Karim Asry**, Creative Director of Espacio Open; **Laura Fernández**, Communications Manager; **Iñigo Arroitauregi** and **Nerea Fresno**, Administration Manager; **Olatz Perea**, **Laura Ruiz**, **Julián Trotman**, and **Ferdinand Meyer**, Cultural mediation; **ABZ**, Printing; **BITEZ**, Translations; **La Machine Gráfica**, Design and Layout.

# We like to preserve the past, prototype the future, and enjoy the present

Welcome to  
the Cookie Factory

espacio  
open



[www.espacioopen.com](http://www.espacioopen.com)

Espacio Open,  
Antigua Fábrica de Galletas Artiach

Ribera de Deusto 70A, 48014, Bilbao  
[info@espacioopen.com](mailto:info@espacioopen.com) / 0034 944 75 12 75