

Social Goodness Review



Our social impact report for friends and
collaborators of Fab Lab Barcelona

What happened at Fab Lab Barcelona during 2020 when the world as we knew it suddenly changed? How did we cope as many plans evaporated and new priorities set in?

The Social Goodness Review takes stock of the past year's insights and celebrates the achievements with you, our friends and collaborators!



Table of Content

We are Fab Lab Barcelona

The Year 2020

Research & Innovation

Applied Research

Open Knowledge

Tech for Good

Power to the People

Education

Master

Academies

Workshops

Collaborating with Companies

The Challenges of 2020

We Are on a Mission

We are Fab
Lab **Barcelona**



Fab Lab Barcelona, located at the Institute for Advanced Architecture of Catalonia (IAAC) brings together an international team of researchers, creatives, educators, makers and designers who are driven by a curiosity to understand the impact we can have on the world around us and rethinking the way we live, work and play in cities.

The Year **2020**

Research & Innovation

Applied research and innovation is at the heart of Fab Lab Barcelona. This year our research was upended with a viral spin when COVID-19 demanded fast solutions from the maker community. Our response to the pandemic has resulted in many resources being

created, such as the book “Viral Design, The COVID-19 Crisis as a Global Test Bed for Distributed Design” – Distributed Design Platform, tackling the challenges and innovations made by distributed designers during the outbreak of COVID-19.



Applied Research

As part of the European community, in 2020, Fab Lab Barcelona worked on 15 European funded projects in house within the 7 strategic research areas: *Emergent Futures; Materials & Textiles; Civic Ecology; Future Learning; Sense making; Productive Cities & Distributed Design*. We were awarded our first EU grant in 2014 and as of 2020 we have been awarded more than 25 EU projects

and have received 7,5 million euros to develop meaningful research in Europe.

EU Funded Projects

We applied our open knowledge and citizen innovation across projects including urban heritage, cultural and creative industries, food technology, urban agriculture, environmental sensing, digital platform development & the circular economy in 15 active projects.



Open knowledge & Resources for all

We continued to share our knowledge far and wide by developing and producing innovative resources for schools, designers, citizens & policy makers. Tools that helped spread the Fab Lab Barcelona values all around the world.

Book

Viral Design – Distributed Design Platform
This book collects observations & reflections from the Distributed Design Platform and extended community of designers and makers on the COVID-19 pandemic.

Publications

11 Publications from our 7 research areas:
1 in Emergent Futures
1 in Civic Ecology
2 in Sense making
2 in Distributed Design
1 in Materials & Textiles
1 in Future Learning
4 in Productive Cities

Toolkits

Collaborative Governance Toolkit
REFLOW

Remix El Barrio: Un ecosistema de co-creación para repensar los excedentes y residuos de comida/ Co-design with biomaterials with food waste in Poblenu
SISCODE

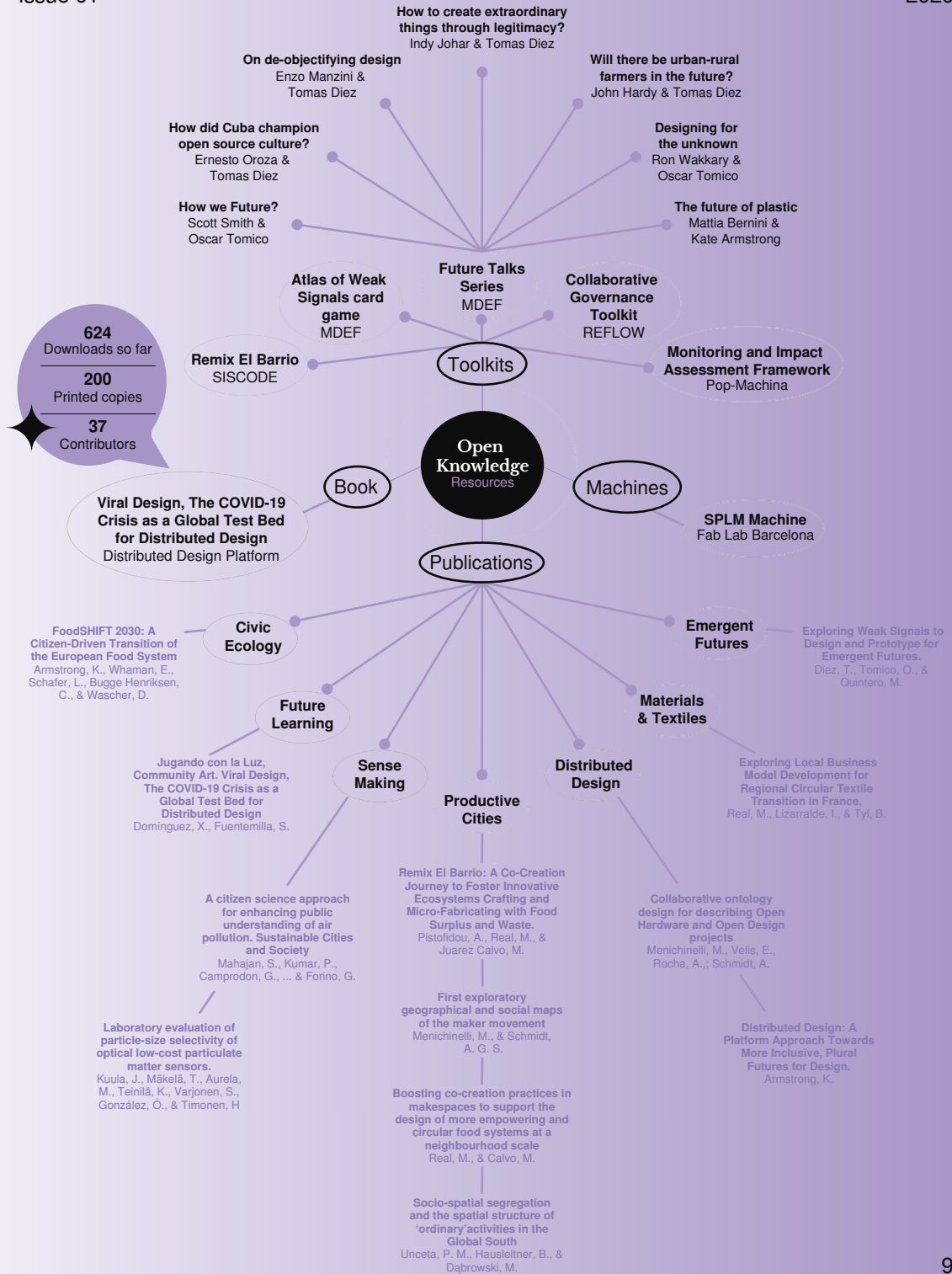
Future Talks Series by the Master in Design for Emergent Futures (MDEF)
Future Talks is a series of conversations with friends of Fab Lab Barcelona, exploring the nature of emerging futures from past to the present and beyond.
8000 in IG 1634 in YouTube.

Monitoring and Impact Assessment Framework
Pop-Machina

Atlas of Weak Signals Card game by MDEF
An innovative card game and workshop created by MDEF, helping identify 'weak signals' as a tool to find possible emergent future scenarios that can assist in the exercise of finding opportunities, threats, challenges and shared visions for innovation, policymaking, intervention, research and business opportunities.

SPLM Machine

Open-source, portable machine that has been designed, developed and manufactured by the Fab Lab Barcelona to bring the Fab Lab to the home.



Tech for Good

Technology is intertwined in almost all aspects of our lives. Most of us have powerful technology in our hands, but how can we harness it for good? Citizen science, co-creation and viral design were some of the tools enabled by our strong digital presence during 2020.

Digital Natives



1864

Commits on
Github



07

Digital Platforms
Developed



06

Community
Platforms

80+ 

Smart Citizen Kits deployed
in schools in Barcelona

Smart Citizen Kits
Worldwide

460



Sensing the World

Citizen science is a form of activism and can help you understand your environment. The Smart Citizen Kits is our legendary environmental monitoring sensor kit that gives people the power to lead.

591+ **Sensors deployed**

50 

**Mobile Air
Quality Sensor**
Bologna University
campus

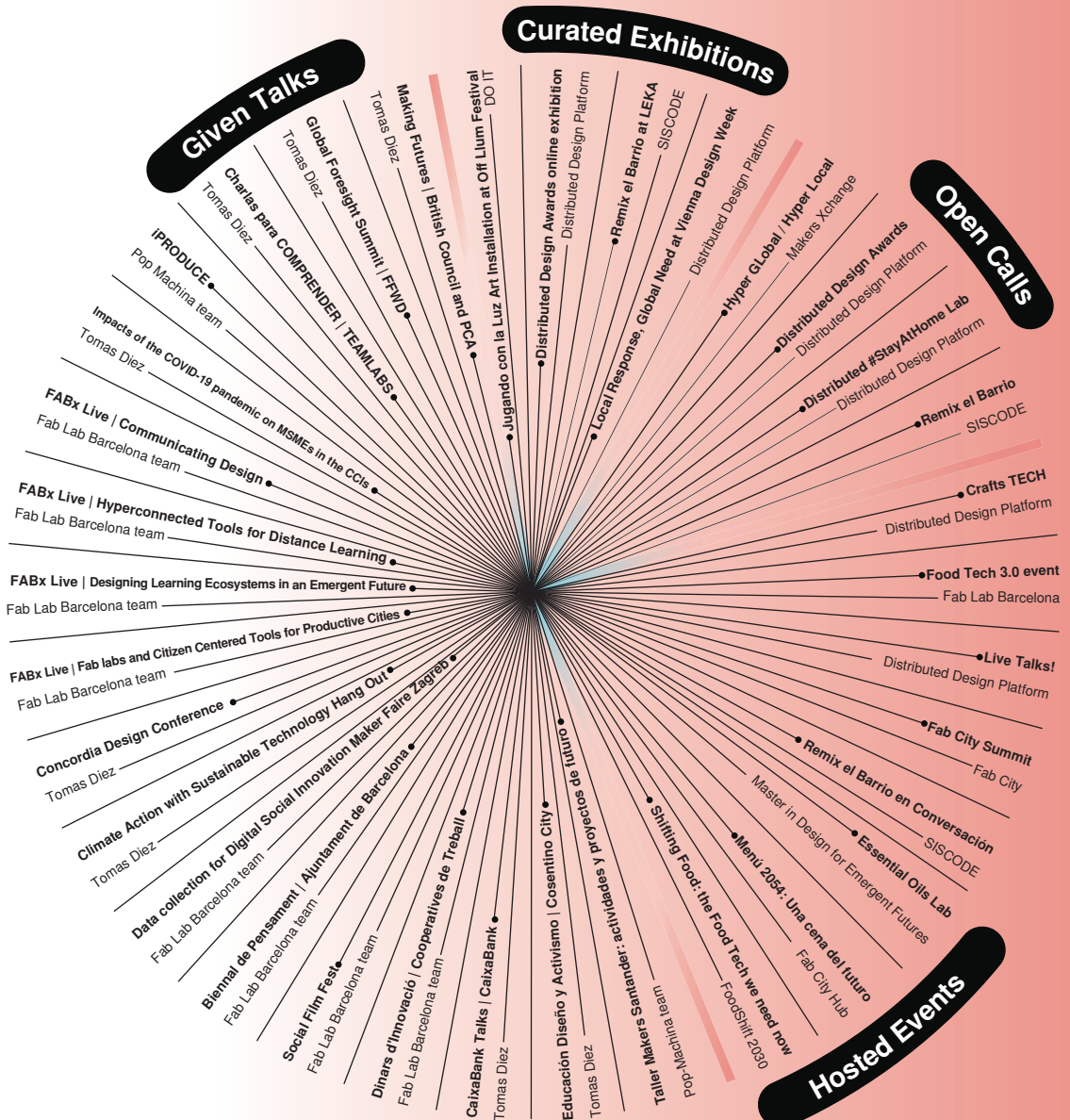
01 

**Sea Water
Quality Sensor**
Barcelona harbour

Power to the People

As a core value, Fab Lab Barcelona puts citizens at the center of a societal transformation towards inclusive, collaborative and circular futures. Like every year, 2020 was made successful by the community of amazing people throughout 2020

thanks to the community of amazing people we work and create with. We curated and hosted an incredible year of activities and events, bringing together thousands of people from all over the globe.





*Jugando con la Luz art installation
at Off Llum Fest - DO IT*

Hosted Events

The events space changed dramatically during 2020 and instead of the Fab Lab Barcelona's emblematic industrial vibe, screens filled with little squares of faces became the standard view for events. Do we still need to wear pants? Despite the lack of human interaction, many online events and courses carried on and online formats thrived. Long live the sourdough!

Shifting Food: the Food Tech we need now – FoodSHIFT 2030

Menú 2054: Una cena del futuro – Fab City Hub

Essential Oils Lab – MDEF

Remix el Barrio en Conversación – SISCODE

Fab City Summit – Fab City

Live Talks! – Distributed Design Platform

Food Tech 3.0 event – Fab Lab Barcelona

Crafts TECH – Distributed Design Platform

FabX Live - Fab Lab Network

Participative Activities

Our strength comes from our community. Here's some of the things we accomplished together last year

Open Calls

Remix el Barrio - SISCODE

Designing and crafting from food waste in the neighbourhood of Poblenou, Barcelona.

Distributed #StayAtHome Lab

A distributed way of producing covid related aids at team members homes during the 1st wave of the pandemic.

Distributed Design Awards

The Distributed Design Awards 2020 celebrate the most innovative, supportive and sustainable design across Europe.

Hyper GLocal / Hyper Local – Makers Xchange

A call for makers to explore the physical and digital connections during times of no travel.

Given Talks

18 talks were delivered by the Fab Lab Barcelona Team, from a social film festival to innovation and tech events, climate conferences and summits around the world.

Curated Exhibitions

Exhibitions also experienced a transformation and some unexpected beauty was born out of captivity. For example "Jugando con la Luz" started as a physical light installation made by children but turned into an online movement, recreated by children living in quarantine all over the world. It stands as a testament to the resilience of children during the most severe of the COVID-19 related lockdowns.

Jugando con la Luz Art Installation at Off Llum Festival – DO IT


Distributed Design Awards online exhibition – Distributed Design Platform

Remix el Barrio at LEKA – SISCODE

Local Response, Global Need at Vienna Design Week – Distributed Design Market

“Being young, female entrepreneurs in the medical device design field is relatively unheard of. We have the ability to approach problems in a new and creative way by pushing the boundaries of what’s possible. This project has shown us that if we put our minds to it, we can really make a change in the sector so this is only the beginning for us.”

– Hannah Grogan and Máire Kane from Ireland, The (PPP) Winners of the Design for Emergency category Distributed Design Awards



Community feedback

Education

We continue to create contemporary learning environments and experiences to support growth, learning, innovation and opportunity for interventions to achieve goals and understanding for future challenges.



Master



Master in Design for Emergent Futures

Challenge the way things work today, design for emergent futures

It's a multidisciplinary course which focuses on turning ideas into prototypes, platforms, actions and interventions to transform the current state of society.

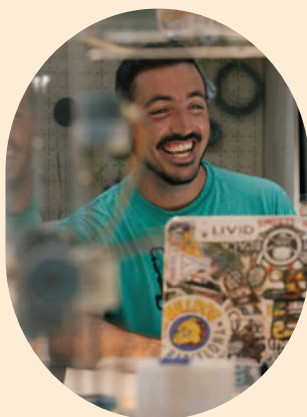
22 students

15 countries

"If you feel like a misfit, or you feel lost, I believe Master in Design for Emergent Futures might be the place for you"

Daphne Gerodimou - MDEF 2020 alumni.

Academies



Fab Academy Barcelona

Turn your ideas into meaningful products

Fab Academy is an intensive five-month program that teaches students to envision, design and prototype projects using digital fabrication tools and machines, turning your ideas into products.

13 students

12 countries

"Fab Academy is like a little lamp that brightens little pockets of knowledge (...) It gives you a little scratch of the surface and then you can dig deep into it. I would do it again"

Benjamin Scott - Fab Academy Barcelona 2020 alumni.



Fabricademy

Change the way to think, not just what you wear

Fabricademy is a transdisciplinary course that focuses on the development of new technologies applied in the textile industry, The intersection of textiles, digital fabrication and biology.

9 students

6 countries

"It's all about sharing knowledge and collaborate between us to create new things"

Lara Campos – Fabricademy alumni



Distributed Design Academy

Distributed Design Platform

The first ever fully online Distributed Design Academy was based around upskilling designers and makers working in digital fabrication and empowering them with a set of tools to help them meet new and emerging markets.

“Great framework of the whole academy. Very inspiring talks and sessions, also community”

Adam Miklosi

15 participants

11 countries



Circular Maker Academy

Pop-Machina

The Circular Maker Academy is an immersive circular making and innovation programme. The objective of the academy is to empower local ‘maker champions’ to establish a circular maker

space and establish a community around it, working in collaboration with diverse local actors on topics such as the reuse of plastic, recycling wood, or using food waste at a city scale.

30 participants

6 countries

Workshops



Maker Education at FabSchools

Distributed Design

Inspiring designers and educators to embrace Maker Education.



Creación de Biomateriales en ConnectHort

SISCODE

Designing and crafting from food waste in the neighbourhood of Poblenou.



3D Printing with Mashed Potato

Fab Lab Barcelona

Hands-on printing with mashed potato to experience how 3D printing works.

“Children will have the opportunity to become a 3D printer themselves, to learn the basic concepts of how this revolutionary technology works ”

– Santiago Fuentemilla, Future Learning Lead
3D printing with Potatos, Cosmo Caixa and
Fab Lab Barcelona

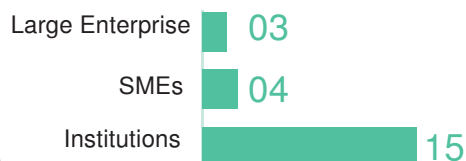


Collaborating with Companies

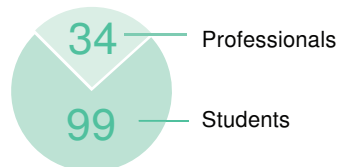
Reaching the variety of actors in society is important to us. We offer collaborations and workshops to companies, sharing Fab Lab Barcelona innovations and interventions with industry, institutions and governments.



22
Collaborations
with new partners



133 Participants
in activities



Partners from
06
countries
Belgium
Spain
Italy
South Korea
Germany
France



“This provided an essential lesson on how traditional agricultural methods can be translated and used as a reference for project development, by combining ancestral techniques with advanced and innovative technologies.”

– Noel Criado, Business Developer at Fab Lab Barcelona,
Slow Food Learning Experience for Università degli Studi
di Scienze Gastronomiche

The Challenges of 2020

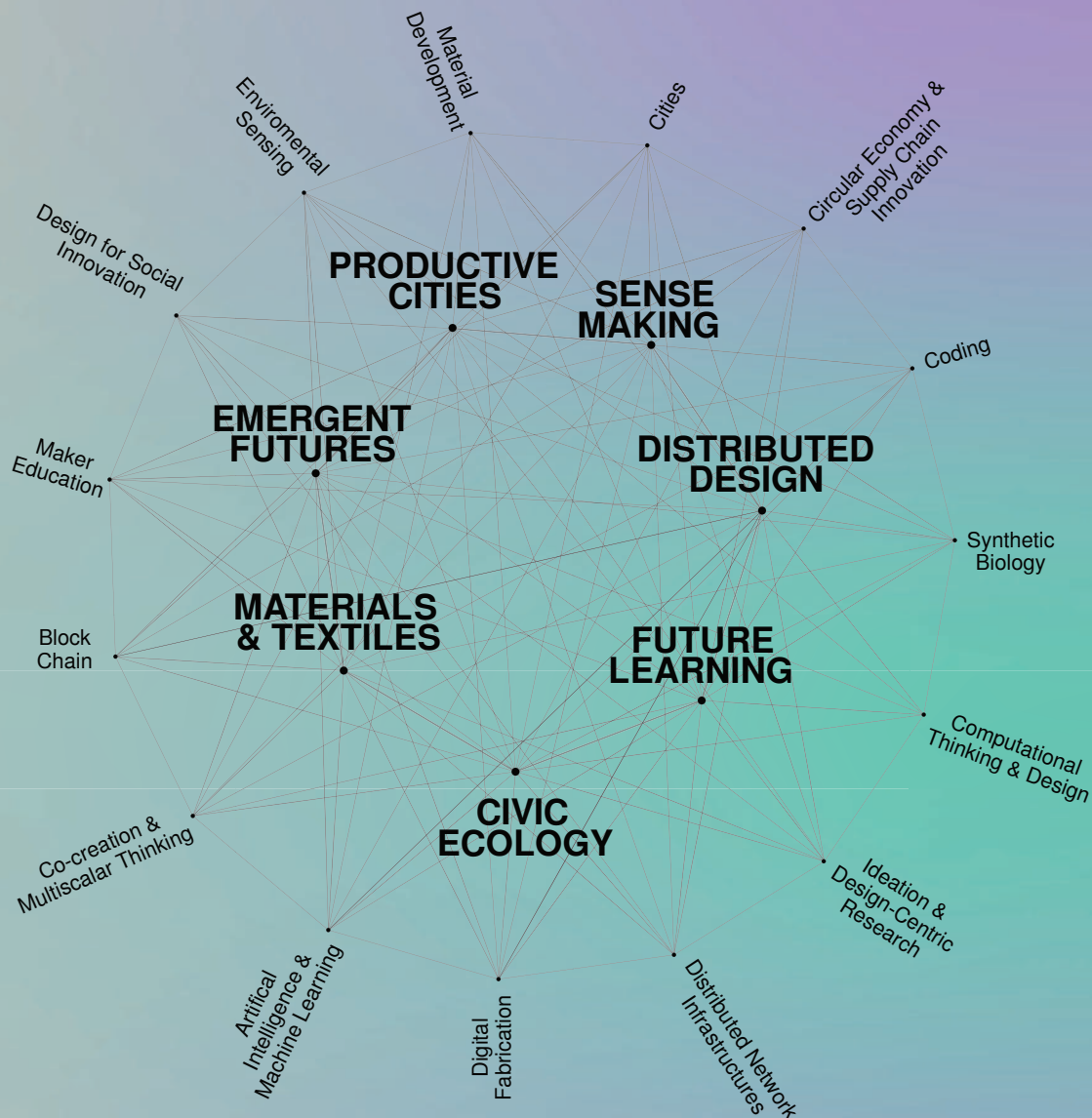


In 2020, we were faced with the global COVID-19 pandemic. It gave us a new perspective to how we work, meet and interact with each other. It also highlighted the importance of makers and the agility of digital fabrication in times of crisis. The ability to design, prototype & manufacture fast became more important than ever with the urgent need for emergency Personal Protective Equipment.

The Fab Lab Barcelona team delivered emergency PPE in collaboration with the City of Barcelona, hospitals, the Catalan maker community and IAAC. We were part of producing over 70.000 visors, more than 40.000 ear guards plus hygienic door handles, STL tolerance tests and face masks. What happened when students were left without access to the lab's machines and tools? Some

real life maker magic took place when our team designed a Simple Personal Mini Lab (aka Six Pack Mobile Lab aka SPML). A Multitool (CNC + laser) machine completely buildable in a Fab Lab, the size of a 6-pack. Our students continued with their projects from home and now you can build your own mini Fab Lab too! Local collaborations became extremely important in the absence of travel, while at the same time creating global online communities now made more sense than ever. Creating communities in digital spaces such as the Emergent Futures community, an online space launched by the Master in Emergent Futures, helped us to stay connected in meaningful ways and even expand our opportunities to bring in unique voices to develop a discourse around emergent futures.

We are on
a mission



What's next? In the year 2021 Fab Lab Barcelona will continue the work of rethinking the way we live, work and play in cities, using knowledge development through hands-on experiences as a driver to implement change.

Our seven strategic areas of expertise are **Civic Ecology, Distributed Design, Emergent Futures, Future Learning, Materials and Textiles, Productive Cities and Sense Making.**

In our pursuit to provide open, public and equitable access to the creation and access to knowledge, in 2021 we will be sensing and identifying opportunities to further co-create impact and work towards sustainable, just futures.

Thank you for being part of our extended Fab Lab family and we look forward to the year to come.

A stylized globe with a grid of latitude and longitude lines. The continents are represented by large, irregular shapes in shades of blue, cyan, and purple. A four-pointed star with a red-to-purple gradient is positioned in the upper right quadrant of the globe.

**Innovation is
not an option,
it's a necessity**

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