

Research Report 2020

Elisava Research

Impact through design

Research Report 2020
Elisava Research
Impact Through Design

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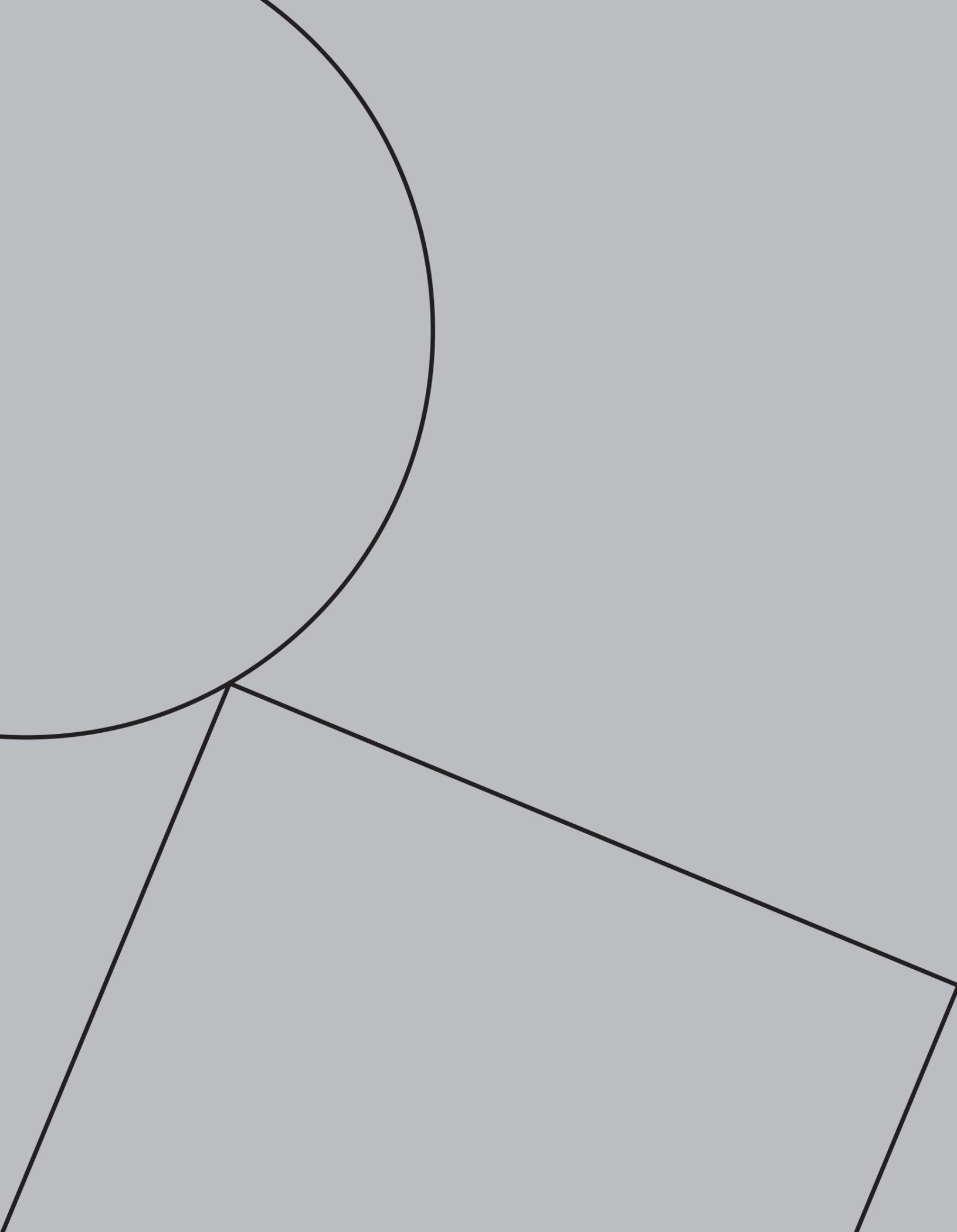
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Elisava Research 2020, a year told
by our main storytellers: our team.

We are not a faceless research
department. A real person started
this project. Real people work
in our office and run our projects.

2020 has been the year that we,
as real (human) people, just like
the rest of the world, have adapted
to the pandemic and spent hours
video conferencing through Teams.

This annual is written by them.



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Foreword

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Elisava Research

In Elisava, research is the cornerstone that allows us to plan the future based on the seamless integration of undergraduate, masters and postgraduate schools. Research is the fundamental element with which Elisava is committed to society, through its interpretation of the moment and by dynamically providing solutions to our day-to-day lives as individuals and as a community, and as part of a planet that must be nurtured and taken care of.

The fundamental challenges we face centre on four basic concepts:

- + Identity and relevance as human beings
- + Diversity as integration of everything
- + Beauty as an expression of information
- + The sustainability of the planet.

The year 2020 has been conditioned by the Covid 19 pandemic. It has been a year of adaptation and methodological learning marked by digital presence, as well as a year full of opportunities, open to new paradigms of multicultural interaction and integration. This has led to the relationship between what is human and technological, what is digital and analogical, and consequently, the process of human experience and all that entails.

We continue to give meaning to the three great missions of the University, with a clear vision of the present and future and focused on generating value for and having an impact on society. These two elements, value and impact, must be made tangible in the form of patents, licenses and student-owned companies, as well as in Elisava, the University that serves as an organization of the people and for the people. This is, in fact, our reason for being.

Javier Peña, PhD.
Scientific Director

2020 Summary

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Elisava Research

Hello. We are a team of design and engineering university researchers. Our role is to generate and transfer knowledge to inspire, educate, instigate change and shake the system. Design and engineering research are transdisciplinary innovation agents, and, more than ever, creativity is a driver for purposeful transformation. We deliver academic excellence, strategic resilience, quality engagement and creative attitudes.

2020 has been a transformative year for all of us. Amidst the health crisis, we have pushed the boundaries of our academic profession, upholding our responsibility to keep delivering and transferring knowledge in an online and hybrid environment. Despite the lack of serendipitous corridor encounters, we have been able to stay connected and to structure the functional units of Elisava Research in order to be even more efficient. Basing our structure on functional units helps to empower the researcher, each of our research areas being focused on a different theme: ERFU Europe, ERFU Business, ERFU Communication, ERFU Institutional, ERFU Publications. Additionally, with a view to consolidating our knowledge after these first four years of Elisava Research activity, we have grouped the research lines into three knowledge centres, labs where we explore three central concepts: resilience through creativity; well-being for humans and the planet; and Technology for the people.

2020 was also the year we released the futures report, Elisava Insights, with a two-year scope and ideated prior to the pandemic, based on the anticipated need for a document

containing strategic guidelines for the challenges to come. The report presents 75 challenges for humans and the planet and is arranged into the five knowledge areas of Elisava Research: Human, Information, Materials, Technology and Society. These areas also comprise the topics for the final degree projects, 2020 being a year with high quality ei! Awards. The Insights report has also been applied in final year subjects as a trigger for the upcoming 2021 final degree projects, aimed at encouraging projects with a high level of research and innovation.

Researchers have been leading high quality projects both at the European level and within companies. Their implication and motivation have been exceptional, and I hope that this has been transmitted to our collaborators, thereby generating a positive impact.

The aftermath of this crisis is going to have profound political, economic and social implications. But we need to wake up and use this as an opportunity to creatively move away from traditional methods and mindsets and shake the system. More than ever, it is our collective responsibility to follow the roadmap that leads to positive change. 'Positive' futures (in plural, since there are as many different futures as there are opportunities) simply means our today. The future is just an attitude, not a time frame. And, at a glance, our today is emotional, social and cultural.

Welcome to our creative think and do tank.

Laura Clèries, PhD.
Director of Elisava Research

Research Labs

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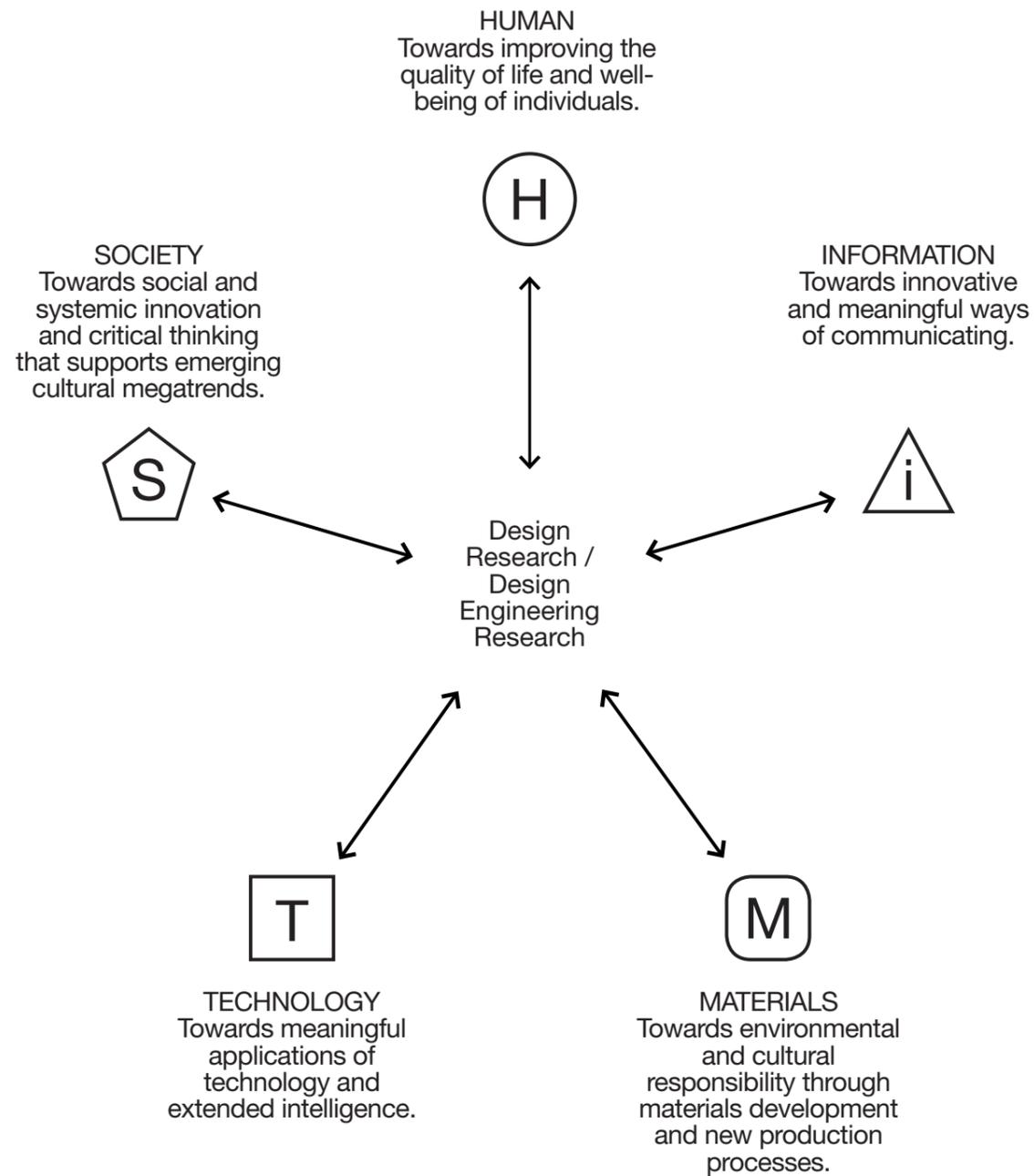
Elisava Research

Elisava Research long term strategy is to envision design and design engineering as transversal knowledge generation tools that dialogue with other branches of knowledge in order to provide meaningful impact and transformations. Design research and design engineering research are not only fields of scientific research in their own right, but can also forge transdisciplinary connections with disciplines such as Human sciences, Information sciences, Materials Sciences, Industrial Sciences or Social Sciences.

In terms of methodologies, Elisava Research practises both research in design and research for design, but mainly strives to produce knowledge by means of research through design and design-driven futures research methodologies.

Elisava Research's team, projects and knowledge outcomes are organized under 3 Research Labs: Creative Think & Do Tank, Materials & Well-being, and Phygital Transformations.

Impact through Design: how design and design engineering research can generate transdisciplinary scientific impact.



Research Labs through which all research team, projects and scientific production is articulated.

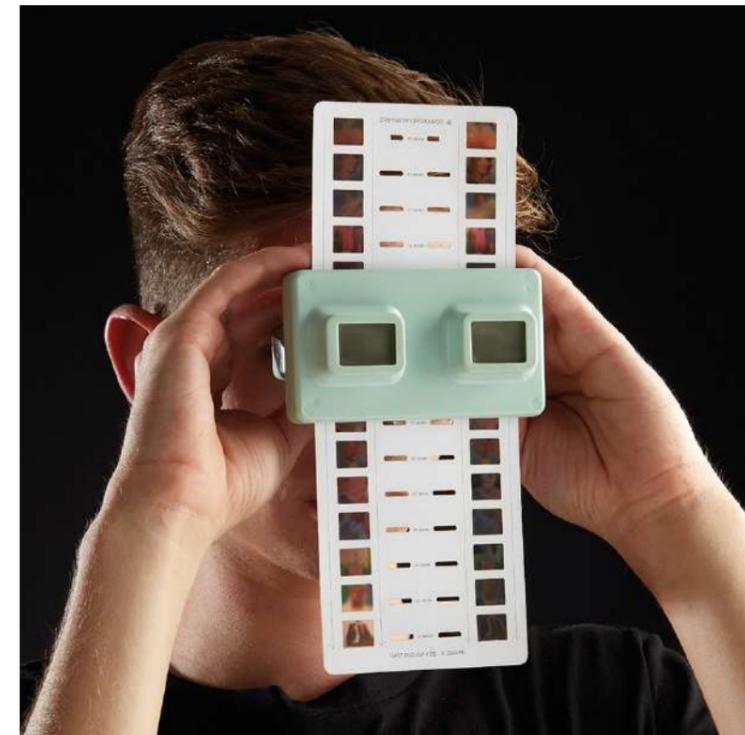


Creative Think and Do Tank

Resilience through Creativity

The research at this centre is based on the theory and methodology of design and futures research, as well as communication tools, with the aim of promoting creativity as a driver of innovation and promoting innovative and meaningful forms of communication for people. The topics addressed are the following:

- + Futures Now: The objective is to investigate sociocultural megatrends and macro-trends based on design as an indicator, and with futures research, co-creation, participatory and scenario planning methodologies.
 - [#FuturesResearch](#) [#DesignProcesses](#)
 - [#CreativeSkills](#) [#CreativeMethodologies](#)
 - [#DataVisualization](#) [#BehaviourByDesign](#)
- + Decoding Creative Processes: Application of the scientific method to decode creative processes and understanding creative competencies as transversal and necessary for various sectors, not only the creative, in order to innovate towards new work models and in decision-making processes.
 - Researchers:**
 - + Juan Jesús Arrausi, PhD
 - + Laura Clèries, PhD
 - + Ramón Faura, PhD
 - + Albert Fuster, PhD
 - + Daniele Porretta, PhD
 - + Oscar Tomico, PhD
 - + Rafael Pozo, PhD
 - + Francesc Ribot, PhD.
- + Information Visualization: We investigate on data visualization, visual communication formats and empathic communication formats in order to empower the citizen and facilitate new transdisciplinary forms of communication in the context of scientific research.
 - PhD candidates:**
 - + Saúl Baeza
 - + Guim Espelt
 - + Jessica Fernandez
 - + Rebeca Font
 - + Oriol Miró
 - + Carla Molins
 - + Cristina Taverner



5 Tools for Digital Detox by Ferran Bretcha.
Creative Activism: Five objects to boost and promote digital detox.

Partners:

The Oslo School of Architecture and Design, University of the Arts London, Politecnico de Milano, University of Florence, The BioRobotics Institute of Sant'Anna School, The University of Dabrowa Górnicza, University of Art and Design Cluj Napoca, DID – Technological Cluster on Interiors and Design, CENFIM – Catalan Furnishings Cluster and Innovation Hub, Cluster Mobilier Transilvan, LEITAT – Technological Centre, Zamek Cieszyn, Seat SA, XMOBA motosharing service, Nano-Care Deutschland, Centre Regulació Genòmica, Københavns Universitet, Friedrich Miescher Institute for Biomedical Research Foundation, Helmholtz Zentrum München Deutsches Forschungszentrum für Gesundheit und Umwelt GMBH, Institut Curie, Max Planck Institute for Molecular Genetics, Centre National de la Recherche Scientifique CNRS, Istituto Europeo di Oncologia SRL & Diagenode, Domestic Data Streamers, CRG, Eindhoven University of Technology (TUE), Salzburg University of Applied Sciences (FHS), elBulli Foundation, Cumulus.

On-going / finished related projects:

- + PMMT ARCHITECTS - The future of hospitals
- + CarNet - A design fiction film about the future of mobility
- + KENDU - future of retail - Systems and experiences
- + BON PREU - The Future of Retail
- + MÉDICOS SIN FRONTERAS - Creative Innovation processes applied in new work cultures
- + FUEL4Design - Future education and Literacy for Designers
- + INTRIDE - Soft, digital and green skills for smart designers
- + CAMS - Adapted Motosharig Services,
- + ChromDesign - Training the next generation of researchers
- + DECS - Decoding European Creative Skills

Related Masters:

- + Master's Degree in Design for Emergent Futures
- + Master's Degree in Data Design

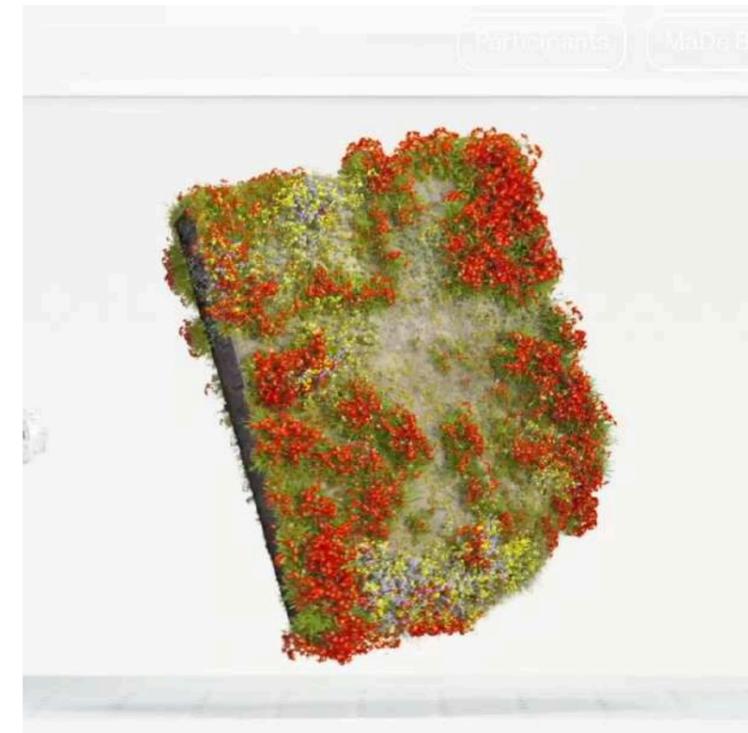
Materials and Well-being

Well-being for humans and the planet

The research of this centre is based on the intersection between Human and Materials, with the objective of improving the quality of life and the well-being of people and the planet, contemplating environmental and cultural responsibility through the development of materials and new production processes.

The topics addressed are the following:

- + **Circular and Active Materials:** We investigate the importance of materials in the decarbonization of the planet and in the circular economy, creatively devising solutions with the aim of providing regenerative consumption. We also promote sustainability through the development of applications with advanced materials in wearables and in dynamic multifunctional products and systems.
 - [#CircularEconomy](#) [#NewMaterials](#)
 - [#MaterialsDesigners](#) [#EmotionalWellbeing](#)
 - [#HealthSpaces](#) [#HealthyMaterials](#) [#Bio-fabrication](#)
- + **Decoding Well-Being:** We understand human well-being as holistic: physical, emotional and spiritual. We decode through quantitative methodologies and neuro technologies the emotional states of users, in order to provide spaces and products for healthy life and work and well-being.
 - Researchers:**
 - + Anna M^a del Corral, PhD
 - + Juan Crespo, PhD
 - + Cristina Gazulla, PhD
 - + Marta González, PhD
 - + Ricardo Guasch, PhD
 - + Martin Koch, PhD
 - + Pere Llorach, PhD
 - + Isabel Ordóñez, PhD
 - + Javier Peña, PhD
 - PhD candidates:**
 - + Ainoa Abella
 - + Maria Araya
 - + Silvia Escursell
 - + Judit González
 - + Jose López Aguilar
- + **Bio-fabrication:** We investigate new manufacturing formats thanks to digital technologies and bio-manufacturing, and their importance in the generation of new value chains, circular and sustainable manufacturing formats, and responsible and innovative use of resources and raw materials.



Material Designers Project:
Boosting talent towards circular economies.

Partners:

Politecnico de Milano, Ma-tt-er, Royal Academy of Art -The Hague (Kabk), Vilnius Academy of Arts, Central Saint Martins -UAL London, Iceland University of the Arts (Reykjavik), ELIA -European League of Institutes of the Arts (Amsterdam), Eurecat, University of Santiago de Chile, RADE – Red Académica de Diseño y Emoción - Mexico DF, Eurecat - Digital Humanities, IBEC, BCN3D.

On-going / finished related projects:

- + LIVING LAB - CENFIM - Decoding Well-being hospitality and retail spaces
- + KAVE HOME - Towards sustainability identity
- + CarNet - Interior materials for shared cars
- + KENDU - Towards a circular economy
- + VIBIA - Well-Being Atmospheres
- + MaDe - Materials Designers
- + PLASTIC JUSTICE - Conscious design education

Related Masters:

- + Master's Degree in Design through New Materials
- + Master's Degree in Industrial Design Engineering

Related Brand Platform:

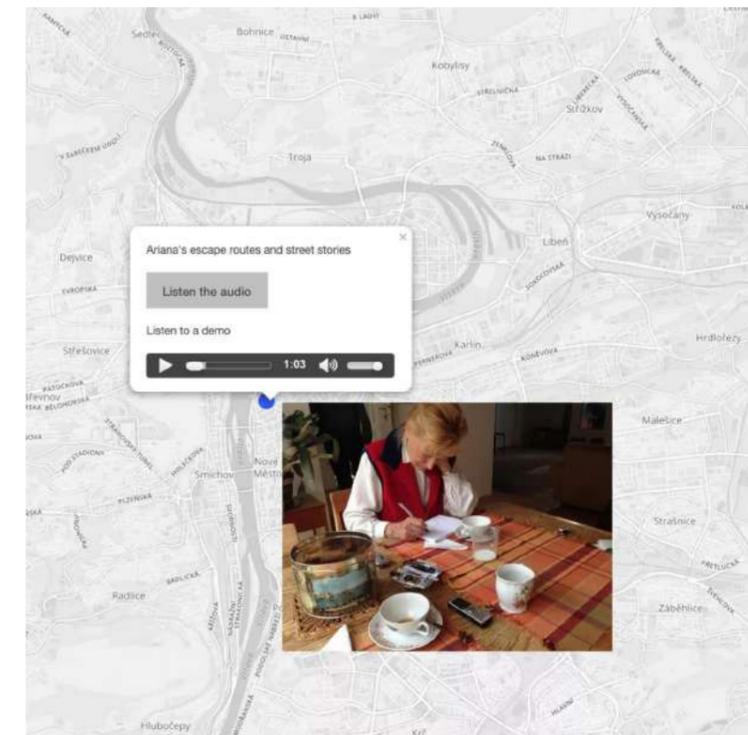
- + Materials Narratives

Phygital Transformations

Technology for the people

The research at this centre is based on the intersection between Technology and Society, with the objective of understanding how technology is imbued in society, providing ethical and meaningful applications of technology and extended intelligence, as well as favouring social innovation, culture and critical thinking that support systemic changes. The topics addressed are the following:

- + Systemic Social Innovation: Building social cohesion, developing and integrating the community, as well as stimulating urban development, its regeneration and infrastructure. Exploration of cultural, production, service and health aspects, and of space, both in their physical and digital versions.
 - [#SystemicInnovation](#) [#SocietalResilience](#)
 - [#DesignandEthics](#) [#DesignandInclusivity](#)
 - [#CityTransformations](#) [#Designforcitymaking](#)
 - [#Territory](#) [#DeGrowth](#) [#Economyforthepeople](#)
 - [#PurposefulTech](#) [#CriticalDesign](#)
- + Digital Design Ethics and Inclusivity: We investigate the ethical and social effects of the development of new digital technologies, taking into account inclusiveness and gender aspects. Also the development of user-centered methodologies (UX and UI).
 - Researchers:**
 - + Laura Benitez, PhD
 - + Jonathan Chacón, PhD
 - + Danae Esparza, PhD
 - + Romualdo Gondomar, PhD
 - + Ariel Guersenzvaig, PhD
 - + Toni Llàcer, PhD
 - + Roger Paez, PhD
 - + Belén de Sancristóbal, PhD
 - + Daria de Seta, PhD
 - + Paolo Sustersic, PhD
 - PhD candidates:**
 - + Tona Monjo
 - + Manuela Valtchanova



Partners:

Municipality of Milan, AMAT - Milan's Agency for Mobility, Environment, and Territory, CARNET, Universitat Politècnica de Catalunya, IAAC – Institute for Advanced Architecture of Catalonia, Ajuntament de Sant Boi de Llobregat, Fundació Bancària “la Caixa”, Ajuntament de Barcelona, Pla de Barris Raval Sud i Gòtic Sud, Design for Social Innovation and Sustainability (DESI Network).

On-going / finished related projects:

- + TELEFONICA ALPHA - Boosting Alpha-Health Digital Products
- + FUNDACIÓ LA CAIXA – Civic Placemaking 2
- + FURNISH

Related Masters:

- + Master's Degree in Ephemeral Architecture and Temporary Space

Related Brand Platform:

- + Design for City Making

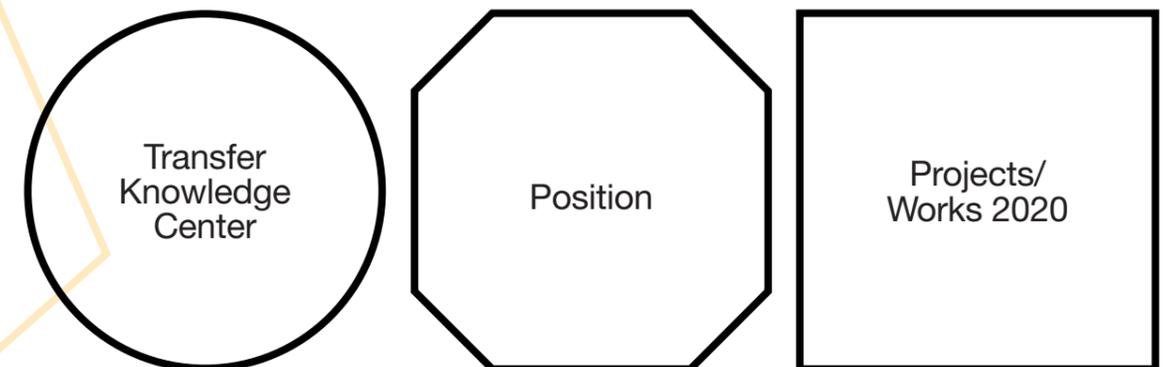
Team

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Elisava Research

Design Research is an emergent way to approaching scientific research, and has a promising path of growth and knowledge transfer. This challenge stimulates our team to keep contributing to this discipline and to advance the knowledge towards more sustainable, ethical and resilient societies.

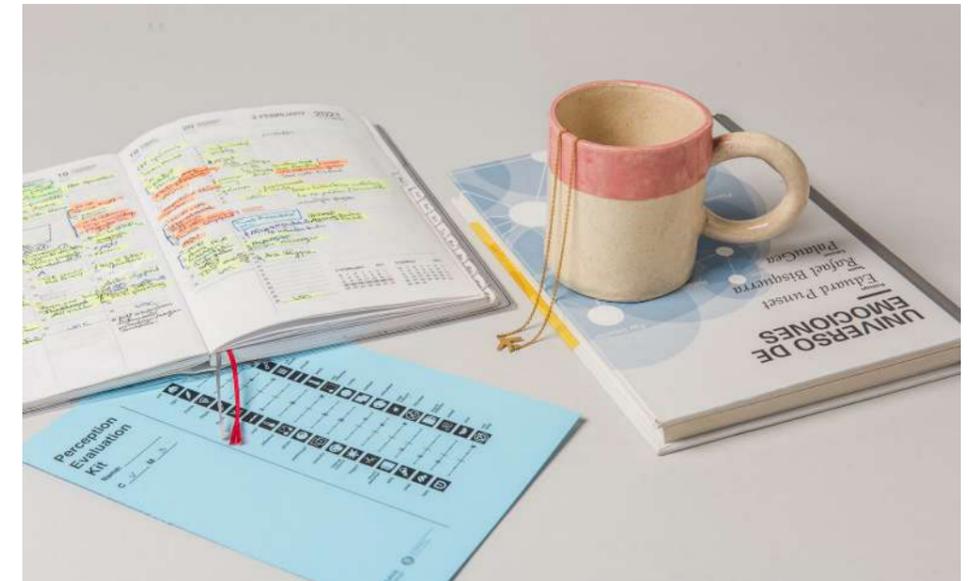
Elisava Research team is an eclectic mix of people that perform their research through the University ecosystem and that deliver a wide range of scientific knowledge formats. Any research activity needs also of functional support, and 2020 was the year that we consolidated the administrative structure for the research department (called ERFU), that supports the different aspects of research: Institutional relationships, European Office, Company relationships, Academy transfer, Publications and knowledge transfer. It is both active researchers and administrative officers that are highlighted in this section.



Active team through 2020 Projects

Ainoa Abella

PhD Candidate



“Research allows me to apply two different and, at the same time, complementary perspectives: human&emotional and statistical. This combination helps me understand the world around us, establish connections, and later, parameterize and tangibilize what makes people feel good.”



PMMT ARCHITECTS -
The future of hospitals
LIVING LAB -
Decoding Well-being
hospitality and retail space



Albert Fuster, PhD



INTRIDE



“Any research project should include a certain degree of fictional narrative that allows objective knowledge (if that exists) to be constructed and communicated in a cohesive and meaningful way...”



Andrea Elvira



Communication Manager - ERFU Communication

“In the words of Martín Caparros: “Mexicans don’t believe in now. They believe in ‘ahorita’.” Because the “now” doesn’t exist and distance dwarfs.”



Elisava Research goes a step further: it’s about being on the front line, in the company of a revolutionary team.”

Anna del Corral, PhD



European Office
Manager - ERFU
Europe

“ELISAVA Research drives the ideas I believe in to reach into society.

The Correspondence of Hannah Arendt and Mary McCarthy is one of my bedside books. The intellectual positioning of these two great women is delightfully intertwined with their daily lives.”

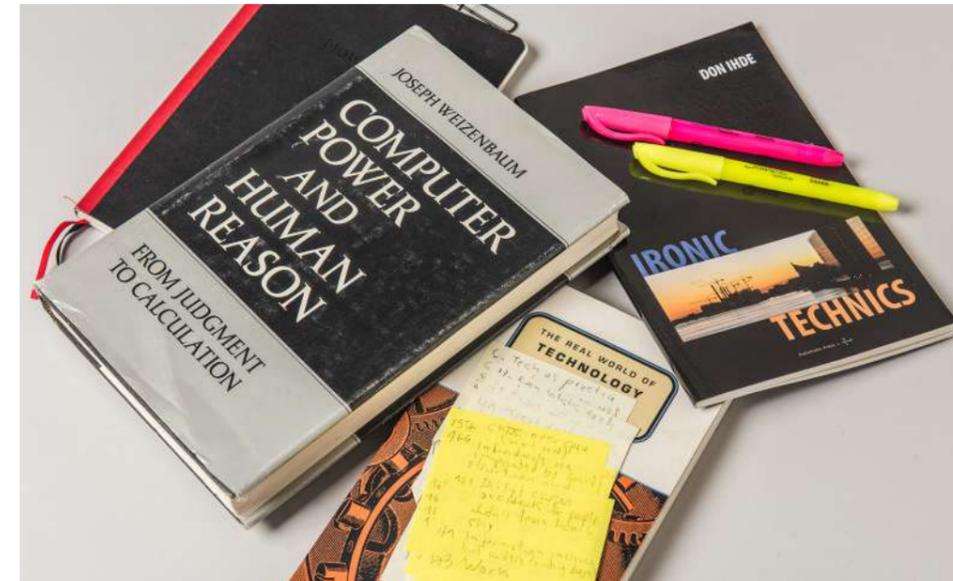


LIVING LAB -
Decoding
Well-being hospitality
and retail space
VIBIA - Well-Being
Atmospheres

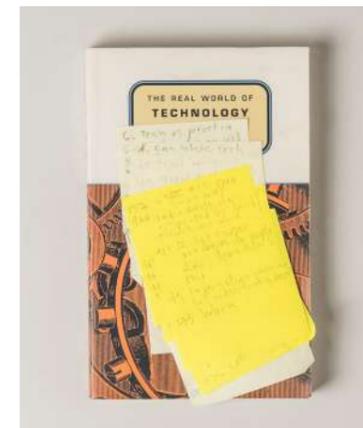


Materials
& Well-Being

Ariel Guersenzvaig, PhD



“After years of carrying out applied research projects, my current focus concerns the development of theory in the areas of ethics of design and technology. Books, notebooks, post-its, a word processor and highlighters are not only essential tools for theory making, but things to think with.”



Phygital
Transformations

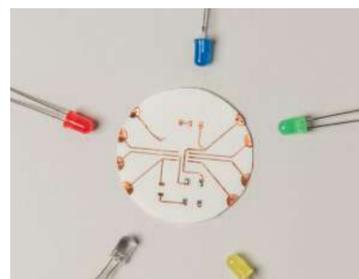


Carla Molins

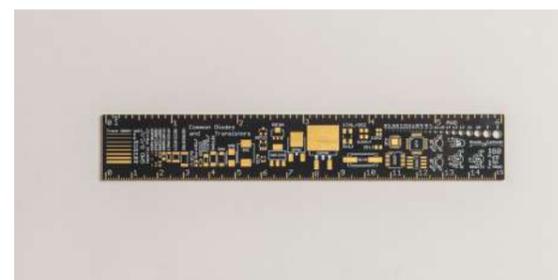
PhD Candidate



“Research is utterly entangled in my design process as, for me, design can be a research method to extract new information. I see design as a scientific communication tool to convey complex information to wider audiences. To do so, I conceive and build impactful and meaningful interactive experiences to create tangible instances of science using some of the objects that you can see here.”



ChromDesign



Creative Think & Do Tank

Carlos Sáez

PhD Candidate



“Really happy to be part of Research @ ELISAVA! I hope that my background as materials engineer and my experience in industry-related R+D projects can contribute to leveraging the research group’s skills. I’ll undoubtedly learn a lot from the group’s booming creativity and design abilities!”



I brought some objects that reflect my main interests: natural structural materials, hierarchical natural structures, nanotextures... and biopolymers!”



Materials & Well-Being

CarNet - Interior materials for shared cars

Carol Márquez

European projects Financial Controller - ERFU Europe



“I’m Carol and am part of the Research Team as the Financial controller for European Projects. Surrounded by art, designers and researchers, all trying to discover better ways of life!! I am really looking forward to making my contribution and, of course, to learning all about the new ideas and results emerging from this institution.



Discovering, nature and well-being; that’s what I’m all about!!”

Cristina Taverner

PhD Candidate

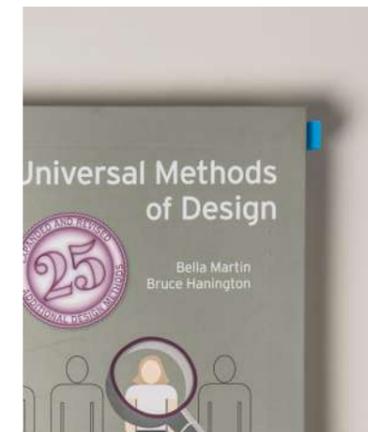


“Research, for me, is the opportunity to grow, deepen and broaden my knowledge in the area that most fascinates me: the creative process, and the skills and design methods that must be applied in this process. Organizing, reading and writing down my discoveries are part of my everyday life.”

INTRIDE



Creative Think & Do Tank



Danae Esparza, PHD



“Like cycling, research allows me to connect areas of the city I don’t know, learn new routes, meet people with similar interests, keep fit and at the same time enjoy the ride.”

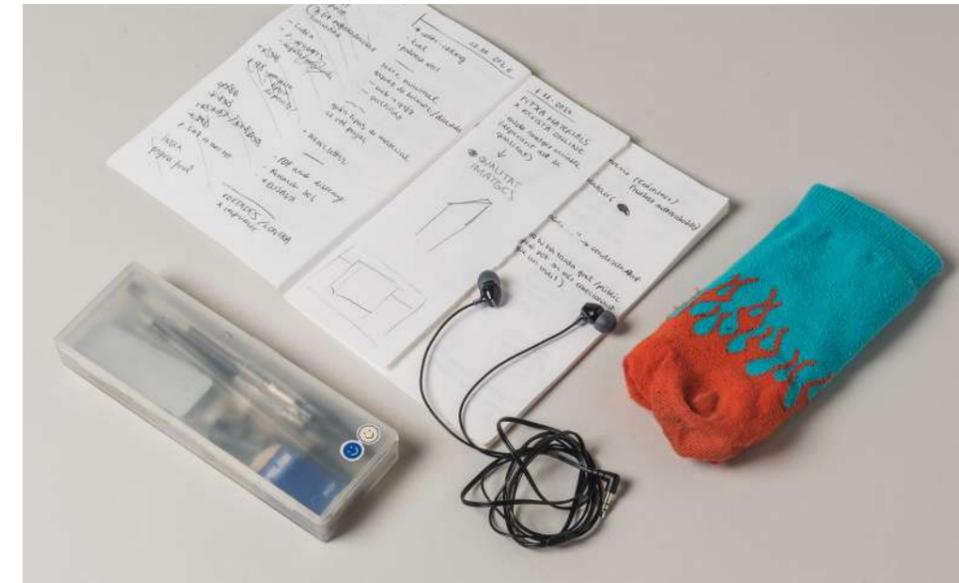


Phygital Transformations



FURNISH

David Quintanilla



Art Direction Trainee

“I always carry a notebook so I can sketch and visualize what needs to be communicated. My job in Research is to help with the graphics element: social media communication, slide shows, report design...”



Francesc Ribot, PhD

ChromDesign
GAMS



“As a researcher in the field of graphic communication, I like to approach knowledge using a methodology by which I capture and document the different evidence that our daily environment gives us, witnesses that are ephemeral since their function and use are quick to expire. It is important that this documentation takes the form of analytical notes that recognize, not only that our field of study responds to a context based on what arises in a programmed way, but that most of the time it is based on the pragmatic spontaneity of the effectiveness of the message transmission.”

Creative Think
& Do Tank



Gemma Caihuelas



“My routine is my diary, my notebook and the 300 post-its around me. Also, meetings, Teams and waving out the Research window, always with a smile for everyone. Structuring, organizing, optimizing, protocolizing and trying to make your job easier; that’s what I do. By the way, I’m a Scorpio.”



Project Manager Business - ERFU Business.
Institutional support - ERFU Institutional

Guim Espelt

PhD Candidate



Publications Manager -
ERFU Publications

Fuel4Design
CarNet - A design fiction film
about the future of mobility
Temes de Disseny

Creative Think
& Do Tank

“2020. CineDesign. City trekking.
Coronavirus. Doodling reused
papers. Endless Excels. Films.
Fuet from Gironella. Futures.
Home. Laughter at meetings.
Learning from teaching. Music.
Nature. Pen. Publications.
References. Research.
ScanMarker. Syllabus. Teams.
Thesis. Trust. Virtual warmth. Etc.”



Isabel Ordóñez, PhD



“Research allows you to look
at everyday circumstances from
a different viewpoint. People often
ignore what’s in their recycling bins,
but observing how sorting errors
happen, I came across this gem:
cellulose is cellulose, isn’t it?”

Plastic Justice

Materials
& Well-Being

Javier Peña, PhD

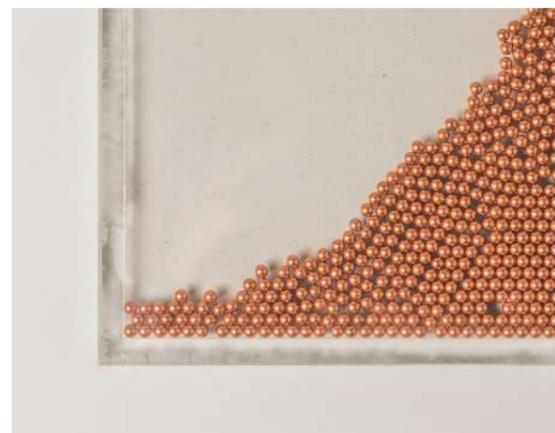
Scientific Director



“What you exchange is what characterizes you. If you want to feel what surrounds you, feel the energy, matter and form. Feel the information transmitted to you. Everything is vibration, everything is polar, everything has its rhythm. Everything is mental. Diverse nature allows and egalitarian culture prohibits.”



Materials & Well-Being



Jessica Fernández

PhD Candidate



Creative Think & Do Tank



“Vision\ Scientific Research through Science and Design Methodologies. Speculative Science.

Attitude\ Hi! I’m a woman creative engineer, rebel and systemic thinking.

Keywords\ #DesignEngineering #DystopianThinking #AdvanceMatter #Graphene #SmartInk #BioDinamicMatter”

José Fernando López Aguilar



“A chair made with recycled plastic with visible burrs as part of the product emphasises the manufacturing process. In this object, the process has been designed together with the recycled material to achieve an aesthetic beyond “what is expected” for a recycled plastic.”

PhD Candidate

KENDU -
Towards a circular
economy

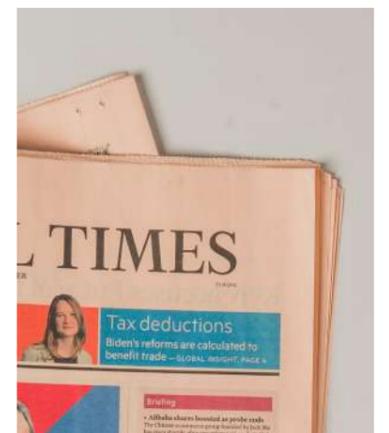
Materials
& Well-Being

Josep Seuba



European Office Expert -
ERFU Europe

“Elisava Research brings me invaluable inspiration for new EU projects. Since the pandemic, Teams has been my umbilical cord to this thrilling community. Along with these online sessions, many ideas on new materials addressing circularity challenges or the future of cultural consumption were shaped as EU projects. In a nutshell, Elisava Research offers me a privileged view of the future that is to come.”



Josep Xampeny



“My role is to oversee the financial side of all the projects, so I’m mainly involved in excel sheets in order to approve the budgets, helping to solve any problems during the project and checking the final figures. Although I’m not involved in any particular project, I like to understand each one of them as I’m convinced they all have the power to build the school’s knowledge and help improve our lives.”

Financial Strategy

Juan Crespo, PhD



“To explore the unknown. Particularly, the 3D environment in which cells develop. We try to mimic this matrix through 3D printing and new bioengineering concepts, aiming to regenerate living tissue.”

Materials
& Well-Being

Judit Gonzalez



PhD Candidate

Materials & Well-Being

“Research at a professional level gives me in-depth knowledge of experimental aspects, facilitating the prior planning of any experiment before it is approached, optimizing time, material and effort. On a personal level ... I am passionate about research!”



CarNet - Interior materials for shared cars



Laura Clèries, PhD



Director of Elisava Research

Creative Think & Do Tank

Elisava Insights
Temes de Disseny
Visions By
Materials Narratives
PMMT
ARCHITECTS - The future of hospitals
CarNet - A design fiction film about the future of mobility
Fuel4Design
ChromDesign
MaDe

“You’ll normally find me in meetings drawing diagrams and scribbling keywords in my notebooks in order to visualize concepts and set future strategies. The story of Elisava Research is captured in all these 28 notebooks!”



Laura Freixas

PhD Candidate



“Elisava Research offers me a space to delve into issues of materials, sustainability, lighting, technology and new fabrication processes and systems.”

VIBIA -
Well-being
Atmospheres



Materials
& Well-Being



Manuela Valtchanova



“Actions. Change the diapers. Disruption. Disarticulate. Suspend. Reinvent. Change the diapers. Temporality. Politics. Insurgency. Dematerialise. Change the diapers. Collectivity. Intersubjectivity. Collaboration. Map. Change the diapers. Transdisciplinarity. Counter-discourses. Transgression. Enact. Change the diapers. Dissent. Imagination. Desire. Affect. Change the diapers.”

PhD Candidate

FUNDACIÓ LA CAIXA -
Civic Placemaking 2

Phygital
Transformations

Maria Araya



PhD Candidate

“Research is a space for meetings and opportunities. It allows me to adopt a strategic position with a systemic and interdisciplinary perspective, to rigorously address new knowledge for evidence-based design and happy and healthy design 4 people.”



PMMT ARCHITECTS -
The future of hospitals

LIVING LAB -
Decoding Well-being
hospitality and retail spaces

Marta González, PhD



Academia Transfer
Manager - ERFU
Academy

“My role within the department is to transfer knowledge between Elisava Research and Elisava as a design school (Degree and Master). Research allows me to keep up-to-date and bring examples of current and future issues to the classroom to inspire, educate and promote academic excellence.”



Materials Narratives
CarNet - Interior materials
for shared cars



Oscar Tomico, PhD



“Technology and crafts are just points of view related to time. A craft is a technology that has been naturalized, and a technology is something new, a black box unknown by many. Research through design is key to exploring this process of investigating the new and at the same time of naturalising the known.”

Fuel4Design
Temes de Disseny

Creative Think
& Do Tank

Pere Llorach, PhD



“Being sustainable can sometimes be easy: using a pencil instead of a pen, recycling, being simple, using natural and compostable materials instead of technical ones and thinking twice about whether the product you are designing is really necessary.”



Materials
& Well-Being

MaDe
VIBIA- Well-Being Atmospheres
KAVE HOME - Towards sustainability identity

Rafael Pozo, PhD



“This tool is commonly used in graphic design production, it is related to precision. Conceptually in “Applied Research in Design”, it helps us to define the level of scientific exploration necessary to develop and sustain a scientific argument, which can later be communicated.”

INTRIDE

Creative Think & Do Tank

Ricardo Guasch, PhD



PMMT
ARCHITECTS -
The future of hospitals

“Complementation between digital and analog. Objects related to well-being is the subject of my line of research.”



The mechanical pencil, the 1200 marker and the paper represent the pleasure of touch and are associated with the most creative moments. This mobile and those headphones are ‘facilitators’, and, since the other objects are endowed with a friendly design, they suit me well. The ‘citron’ scent of the hydroalcoholic gel presided over my sensitive reunion with the world when I recently lost my sense of smell.”

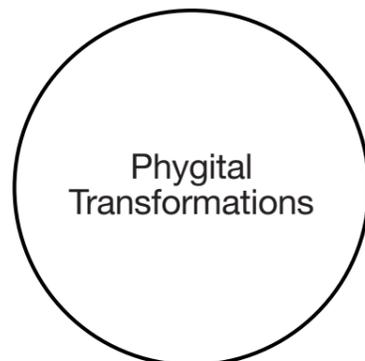


Materials & Well-Being

Roger Paez, PhD



“Design research ties various worlds together, linking speculation, knowledge transfer and social impact. A piece of broken glass, a customised sock and a Perspex map. Three objects from three recent projects as testimonials of crucial issues in my spatial design research: temporality, collaboration and mapping.”



FURNISH
FUNDACIÓ LA CAIXA – Civic Placemaking 2
Design for City making

Saúl Baeza

PhD Candidate



“Being a designer (DOES Work) and researcher (Elisava Research + TU/Eindhoven), allows me to follow a simultaneously theoretically and empirically grounded practice, with the potential to further inspire designers and researchers to reframe existing biometric artificial intelligence technologies and their possibilities for a more explorative and inclusive scenario.”



Visions By
KENDU - future of retail

Elisava Research Functional Units

Laura Clèries

ERFU Strategy & Vision

Gemma Caihuelas

Project Manager Business - ERFU Business.
Institutional support - ERFU Institutional

Anna del Corral

European Office Manager - ERFU Europe

Josep Seuba

European Office Expert - ERFU Europe

Carol Márquez

European projects Financial Controller -
ERFU Europe

Josep Xampeny

Financial Strategy

Marta González

Academia Transfer Manager - ERFU Academy

Guim Espelt

Publications Manager - ERFU Publications

Andrea Elvira

Communication Manager - ERFU Communication

David Quintanilla

Art Direction Trainee

Elisava Researchers

Ainoa Abella

Albert Fuster, PhD

Anna Baldrich

Anna del Corral, PhD

Antònia Monjo

Ariel Guersenzvaig, PhD

Belén de Sancristóbal, PhD

Bernat Faura

Carla Molins

Carlos Sáez

Celia Marín, PhD

Cristina Gazulla, PhD

Cristina Taverner

Danae Esparza, PhD

Daniele Porretta, PhD

Daria de Seta, PhD

Esther Brossa, PhD

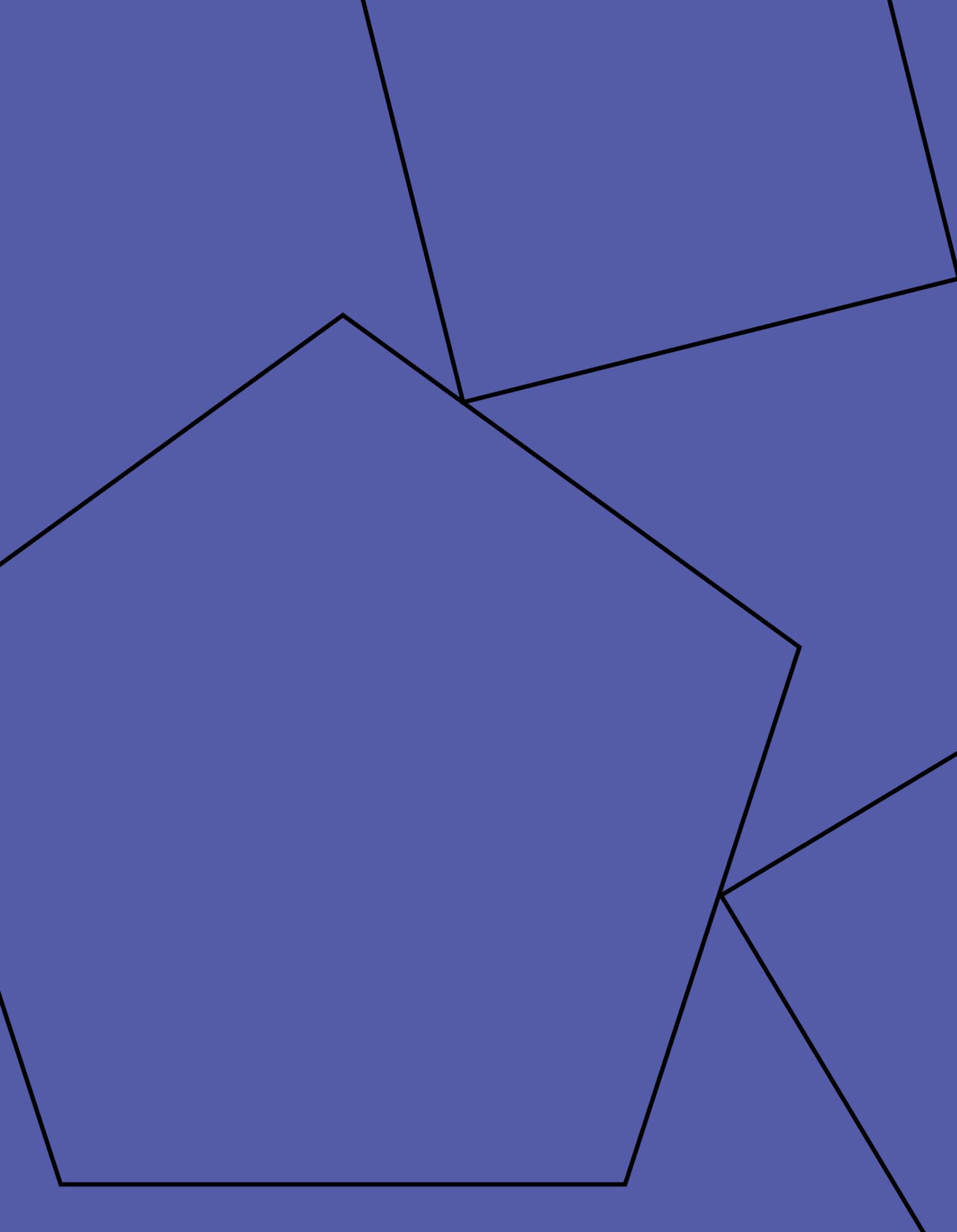
Francesc Mestres

Francesc Ribot, PhD

Guim Espelt

Isabel Ordóñez, PhD
Javier Peña, PhD
Jessica Fernández
Joan Gomez, PhD
Jonathan Chacón, PhD
José Fernando López Aguilar
Juan Crespo, PhD
Juan Jesús Arrausi, PhD
Judit González
Laura Benítez, PhD
Laura Clèries, PhD
Laura Freixas
Laura Quesada
Lluís Sallés, PhD
Manuela Valtchanova
María Araya
Maria Pilar Mellado, PhD
Mariana Eidler
Marta González, PhD
Marta Janeras

Martin Koch, PhD
Martín Ruiz
Miquel Santasusana, PhD
Oriol Miró
Oscar Tomico, PhD
Paolo Sustersic, PhD
Pere Llorach, PhD
Rafael García, PhD
Rafael Pozo, PhD
Ramon Faura, PhD
Rebeca Font
Ricard Guasch, PhD
Roger Paez, PhD
Romualdo Gondomar, PhD
Saúl Baeza
Silvia Escursell
Toni Llàcer, PhD
Varvara Guljajeva, PhD
Xavier Riudor

The top-left corner of the page features several overlapping, irregular black-outlined polygons. These shapes are composed of straight lines of varying lengths and orientations, creating a complex, abstract geometric pattern. The lines are thin and black, contrasting with the solid blue background.

New ways of working

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Elisava Research

Last year, the great 2020, has been a year marked by our ability to adapt and, above all, to establish and consolidate new ways of working, something the Research department had already been working on for some time.

We have been forced to go 100% digital and to unquestioningly embrace the Teams platform. It has been a year in which we have worked, and continue to work, on new organizations and protocols to make improvements in structure and efficiency, and above all, facilitate remote working, enabling the smooth day-to-day operation of our team.

We have been working from studios, living rooms, terraces and kitchen tables. Many emails have been transformed into Teams chats, phrases like “I’m coming” have turned into the click of a button and connecting to a meeting, and documents are no longer attached, they are shared on OneDrive. That said, I can assure you we have missed conversations over a coffee, the “let’s meet downstairs for a chat” and sharing moments and seeing each other’s faces in meetings.

What I do know about this year is that we are ready for the challenges to come.

Gemma Caihuelas,
Project Manager Business -
ERFU Business.
Institutional support -
ERFU Institutional

Investment

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Elisava Research

Private companies' main focus is to be competitive in an increasingly difficult and globalised market. To achieve this Research and Development (R&D) activities are widely seen to be crucial elements. It is also broadly accepted that in Spain, companies are not investing in R&D as they should.

Regional governments are aware of how important it is to promote R&D and allocate significant amounts of resources for this purpose. On the other hand, we -the universities- are focused on education and knowledge generation through research.

So, for different reasons, we all need to invest in creating structures dedicated to R&D.

Those responsible for the figures in any of the three abovementioned stakeholders - companies, governments or universities - will usually have to know what the expected ROI of R&D investment is.

We may all have different answers, but there is one that everybody agrees on: the more we share resources the higher the ROI will be.

We all understand that we have to be in the R&D "business", but we have to be ready to participate with quality standards. Anyone not ready to do this will not be considered a real player, and will therefore be left aside.

This is why we all have to understand that we have to create suitable teams, dedicate resources, promote collaboration between private companies, universities and the regional government, choose with whom to collaborate and grow so we can choose more interesting options. And if we do all that, as a university, we will certainly be creating more knowledge, educating our students better and helping our ecosystem become a better place to live in. So, onto another common question: how much should we invest in R&D? Well, as long as it is well focused and with the right partners, as much as we can!

Josep Xampeny,
Financial Strategy

Projects

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Elisava Research

At Elisava Research we strongly believe in the power of knowledge transfer and knowledge exchange with the school, the industrial ecosystem and society. We undertake research through our active engagement in European-funded projects and through company innovation projects. From Creative Europe to Horizon 2020 programmes, we have a European and international ecosystem of academic and non-academic collaborators with whom we explore the disruption of the established boundaries, through the generation and transfer of knowledge. This enables us to inspire, educate, instigate change and shake the system.

In terms of business performance, the value of design research and design engineering research has evolved. Today, designers and design researchers contribute at a number of different levels, ranging from strategic business direction and design management to the conceptual design, design development and production of user-centered products and services for the private and public sectors, all of which helps your company to grow and transform in order to be future-fit. Design is an investment, not a cost!



Company & Institution Projects

Key innovative actions:

- + Exploration of research and innovation actions and future spin offs for the architectural medical sector (PMMT)
- + Speculative and applied near-future solutions to visualize the future of retail (KENDU)
- + A positioning campaign based on research-driven communication strategies (CARNET)

PMMT ARCHITECTS - The future of hospitals



“The main challenge was to answer a specific but complex question; our main tool for addressing this question being an interdisciplinary perspective. Research has provided an ideal platform for the generation of new knowledge, obtained from the combination of various sources of information. The rigor with which the process has been developed has made it possible to deliver final products framed in scientific articles and conference presentations. Elisava Research contributes knowledge, scientific evidence and new ways of operating, from a more humanized and empathetic perspective, generating value and more potential ways for innovation.”

By Maria Araya

PMMT architecture studio, from its research area, seeks to define new parameters and research lines on the basis of the definition of the future of hospitals. Elisava Research and its interdisciplinary research network worked to provide scientific support based on near and far future sociocultural trends research, expert insights, and current scientific state of the art, in order to evaluate and strengthen PMMT's research lines and propose new strategic ones.

Team:

Ricardo Guasch, PhD; Maria Araya; Ainoa Abella; Laura Clèries, PhD.

Outcomes:

- + Innovation Report
- + Scientific Paper

CarNet - A design fiction film about the future of mobility



“The project showed that fiction film as a research output is a format worth further exploring. This film can represent a disruptive breakthrough in the way future mobility is communicated and disseminated into the mobility sector and society in general.”
By Guim Espelt

A lifestyle and design fiction research-based project as support for the development of a spot on the future of mobility.

Elisava Research organised the project in 5 work packages –Desk Research, Expert Forums, Lifestyles Research, Film Research and Art Direction Research– to gather insights from which to build a story upon. The result was a 2-minute audiovisual following a main character moving through the city, where each scene and word responded to research insights.

Team:

Guim Espelt; Laura Clèries, PhD; Attassa Cabrera.

Interventions from Ramon Faura, PhD; Saúl Baeza; Roger Paez, PhD; Tona Monjo.

Audiovisual Production: Åkerblom Studio.

Outcomes:

- + Innovation Report
- + Video

KENDU - future of retail - Systems and experiences



The choice to carry out an intensive three-day Research Lab / Workshop was born as a result of the multiple conversations and work sessions between KENDU and Elisava Research. In parallel to a relationship between the two entities with different exploration branches and objectives, a workshop is proposed to explore different concepts and fields of interest exposed by KENDU in an initial “Brief” document, the objective of which is to explore, discover or propose new types of product, experience, service or business.

GOALS:

- + Differentiation and penetration in other sectors and markets in order to innovate and be a pioneer.
- + Generate disruptive ideas related to new forms of product exposure for the retail sector or other target sectors.

Team:

Saúl Baeza, Sara Torres Lopez, Juan Ezcurra Azpurgua, Ignacio Ezcurra Azpurgua, Elia Bagó Flaquer, Victor Betriu Yañez, Bernardo Vazquez Vera.

Outcomes:

- + Workshop
- + Innovation Report

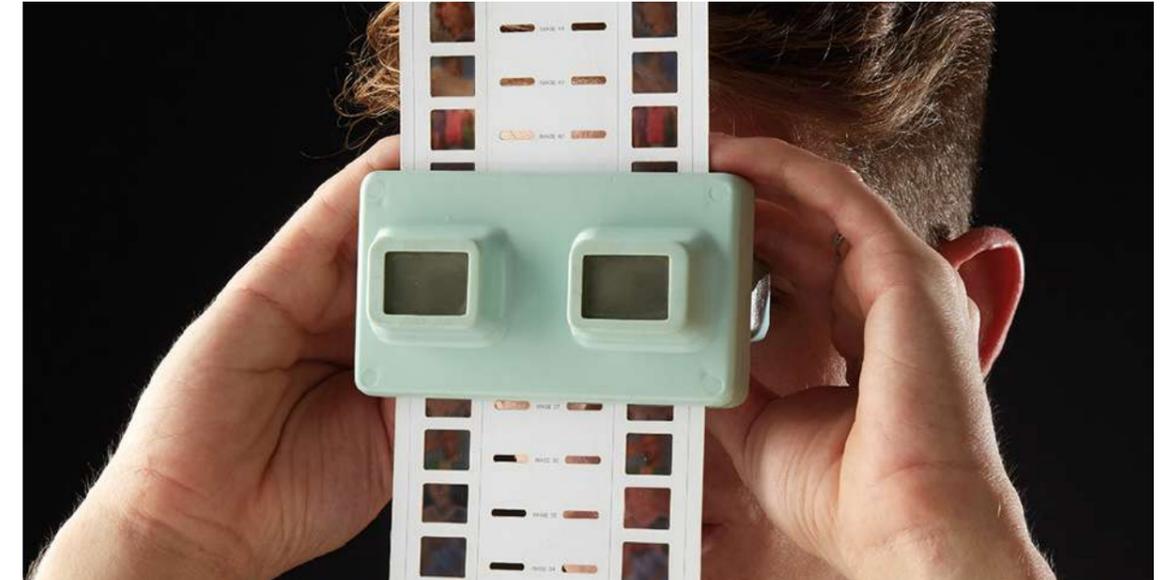


European Projects

Key research outcomes:

- + The role of academy in skill building for industry (INTRIDE)
- + Many approaches to futures research, its interdisciplinary nature and the novel approach of using design as a key agent in new futures methodologies (FUEL4Design)
- + Transdisciplinary interactions between different scientific profiles and an approach to citizen science (ChromDesign)
- + Visual communication invisible health solutions for shared motorbikes (CAMS)

FUEL4Design - Future education and Literacy for Designers



“Fuel4Design is a key project to understand how design processes integrate into regular futures forecasting methodologies, and in producing very innovative methodologies that gather different insights and processes from other disciplines such as philosophy, literature and lexicon, and tools design. It is very exciting to be part of this expert transnational team, and to produce genuine content that can help train designers in futures research with a wider perspective.”

By Laura Clèries, PhD.

“Fuel4Design revindicates the role of making in futures scouting. It supports the coming of age of personal and situated practices to future making in the form of 1st person perspective design interventions and alternative presents. Thus, rethinking what futures research can be, opening new doors for research through design in this area.”

By Oscar Tomico, PhD.

FUEL4Design supports the discipline of Design and its MA/PhD students and teachers in Higher Education Institutions (HEIs) to productively anticipate critical futures learning needs and change processes through sustained future making.

Design is one of the few disciplines that work pragmatically and creatively with the future. It does so through acts of making and projection that aim to produce products, services and interactions beyond the strategies and systems of the here-and-now. 21st-century design pedagogy

needs to be urgently reframed in an approach that we call ‘Design Futures Literacy’. This is a literacy that connects teaching and learning to provide an education for young designers for designing for complex tomorrows.

The main objectives of the project are to develop, test and implement new approaches and resources to provide learners and educators with innovative and adaptable tools to imagine, perform and enact a plurality of futures by design. This is to equip design learners and educators to deal with real-world issues on technodigital futures, climate crisis, and political instability. We will connect experimentation and design theory via invention, imagination, speculation, and through design making activities such as via prototyping, scenario building, and foresight.

Team:

Oscar Tomico, PhD; Laura Clèries, PhD; Guim Espelt.

Partners:

The Oslo School of Architecture and Design, University of the Arts London, Politecnico de Milano.

Outcomes:

- + Design Futures Lexicon
- + Futures Philosophical Pills
- + Design Futures Scouting
- + Design Futures Toolkit
- + Futures Literacy Methods
- + Design Futures Manual

INTRIDE - Soft, digital and green skills for smart designers



“Thanks to the INTRIDE project, we have had the opportunity, from Elisava Research and in collaboration with nine other European partners, to identify the skills that 21st-century industry, in the product and furniture manufacturing sector, expects from a designer as a trigger for innovation and change. This project enables the definition of a JMDP to help determine and generate this designer profile. Elisava is one of the key partners in defining the contents of this programme, as well as a facilitator of research methods through knowledge contribution and generation.”

By Cristina Taverner.

INTRIDE is a 10 partners alliance (Italy, Spain, Poland and Romania) aiming at developing a structured cooperation framework between HEIs, clusters/business representatives, technological centres and enterprises. Mentioned competences are related to: digital skills, green skills, soft skills; which will be implemented on a design knowledge based profile being naturally able to creatively manage innovation processes.

This project is leading the creation of a strong link and continuous interaction among HEIs (Higher Education Institutions), industry and intermediaries by developing a joint curriculum of the designer with soft, digital and green skills conceived

as innovation trigger in activating innovation processes and managing the collaboration eco-system.

INTRIDE aims at developing new innovative and multidisciplinary approaches and tackling future skills mismatches.

Team:

Cristina Taverner; Jordi Ros; Albert Fuster, PhD; Rafa Pozo, PhD.

Partners:

University of Florence, The BioRobotics Institute of Sant’Anna School for competences related to digital skills, The University of D browa Górnica, University of Art and Design Cluj Napoca, DID – Technological Cluster on Interiors and Design, CENFIM – Catalan Furnishings Cluster and Innovation Hub, Cluster Mobilier Transilvan, LEITAT – Technological Centre, Zamek Cieszyn.

Outcomes:

- + Joint Master Degree Program for Smart Designers
- + Co-creation structure under a HE-industry community platform

CAMS - Adapted Motosharing Services



“An extensive and in-depth study of the behavior of users with motosharing services has been key to understanding the implications of the pandemic in the shared mobility sector. By applying a product based on nanotechnology called Liquid Guard®, the transmission of Covid through contact with the surfaces is avoided. Elisava Research has been responsible for solving the communication to the user of this innovation, following a methodology of analysis of the factors that intervene in the interaction of the user with the vehicle, studying the visibility spectra and defining a communication tone through the graphics.”

By Francesc Ribot, PhD.

COVID-19 is jeopardizing the financial viability of freefloating motosharing. The decrease in the number of users can jump up to the 26% (latest mobility polls) with its corresponding revenues decrease. Along with this decrease comes an increase in the operation costs due to sanitation. Liquid Guard® by Nano-Care is a nanotechnology that, applied in the surfaces, is able to eliminate

virus, microbial, bacterial and fungus, without additional human intervention, reducing service providers costs and increasing users safety. Barcelona, as the European city with the highest rate of motorbikes per inhabitant, is the perfect city to test Liquid Guard® against COVID in motosharing services.

Team:

Francesc Ribot, PhD; Silvia Escursell; Gemma Delgado.

Partners:

Seat SA, XMOBA motosharing service, Nano-Care Deutschland

Outcomes:

- + Liquid Guard® Product Validation
- + Liquid Guard® Operation defined (application operational procedure)
- + MotoSharing users behavior and fears of COVID-19
- + XMOBA Motosharing service viability
- + Liquid Guard® Mobility services aplicability

ChromDesign - Training the next generation of researchers



“One of the main challenges of Chromdesign has been to integrate the knowledge of a highly complex subject to the uses, methodologies and techniques of the dissemination of knowledge. Elisava Research brings an innovative approach to scientific communication from an interdisciplinary design, contributing in attractive and efficient ways to interpret advances in genomics. In addition, we have been able to innovate not only in the relationships established by the research with the areas of knowledge that are its own, but also with the publics that interact with it.”
By Francesc Ribot, PhD.

ChromDesign is an innovative and interdisciplinary network of 10 European academic and private institutions that will characterize how 3D chromatin organization affects gene regulation during cellular differentiation and in several human disorders. We will train 13 Early Stage Researchers (ESR), equipping them with the skills, knowledge, expertise, and enthusiasm necessary to develop successful future careers in the biomedical field (in academia or the private sector). Together with European experts in chromatin biology, 3D genomics, and research design, these ESRs will work towards the goal of identifying novel alterations in chromatin topology responsible for cellular malfunctions.

Our PhD candidate will work in understanding how design can be a research method to extract new information, as well as using design to communicate scientific complex knowledge to society.

Team:

Carla Molins; Francesc Ribot, PhD;
Laura Clèries, PhD.

Partners:

Centre Regulació Genòmica, Københavns Universitet, Friedrich Miescher Institute for Biomedical Research Foundation, Helmholtz Zentrum München Deutsches Forschungszentrum für Gesundheit und Umwelt GMBH, Institut Curie, Max Planck Institute for Molecular Genetics, Centre National de la Recherche Scientifique CNRS, Istituto Europeo di Oncologia SRL & Diagenode.

Outcomes:

- + Transdisciplinary science communication training
- + Semiotic analysis



Company & Institution Projects

Key innovative actions:

- + How users and customers perceive the hospitality spaces and how these can be adapted to promote well-being (LIVING LAB)
- + How a home and furniture brand can transit to a sustainable mindset, sustainable materials, and honest and caring social responsibility (KAVE HOME)
- + How materials properties can be used into lengthening the life cycle of shared cars (SEAT Interiors)
- + How to evaluate the ecological impact of retail products and how to generate a circular Product-Service-System (KENDU)
- + The search for lighting products that influence spaces with the generation of atmosphere, emotion and beauty. (VIBIA)

LIVING LAB - CENFIM - Decoding Well-being hospitality and retail spaces



“The Decoding Efficient Interiors project presents as a challenge the creation of a toolbox to allow objectively assessing the perception, emotions, and behavior of users in a space, specifically in the hotel sector. Research has contributed to it with innovative, multidisciplinary, practical, and rigorous vision. As a final result, this approach translates into a tool with wide applicability and a huge potential for use in different contexts thanks to its evidence-based design perspective for decision-making.

This project becomes even more relevant given the current context of COVID-19 pandemic where investments in hospitality will be directed by the adoption of protocols and space renewals to reactivate safe tourism to care for customers and workers. In this sense, perceptions and emotions play a significant role in decisions.”

By Ainoa Abella.

A project on the decodification on the spatial ergonomic parameters of hospitality and retail interiors influencing the user experience through the use of physiological tools and ambient measuring devices.

Team:

Anna M^a del Corral, PhD; Maria Araya; Ainoa Abella.

Outcomes:

- + Research on the parameters of the environment that influence the perception, emotion and behavior of the user.
- + Researching of user parameters that allow to show up the influence of interior design, and the tools that allow to measure them.
- + Toolbox (methodological guide) of tools and methods that allows to measure and evaluate the perception, emotion and behavior of users in hotel indoor spaces.
- + The experimentation of the toolbox in a real environment, at the Interihotel BCN'19 event.

KAVE HOME - Towards sustainability identity



“Does it make sense to keep producing large amounts of products and try to reduce their environmental impact instead of changing our society’s consumption habits? The team helped Kave Home to create a new brand identity based on being respectful with humans and the environment. Additionally, a Life Cycle Assessment was done to reduce the environmental impact of one of their packaging solutions. From Elisava Research we are always looking forward to find new ideas and methodologies tested at research level that could be applied in the industry.”

By Pere Llorach, PhD.

Kave Home wants to step towards more sustainable practices, specially in the packaging system, as well as visibilize its current sustainability initiatives. All from an emotional (guilt-free), educacional and commercial approach.

Elisava Research brings in its team and innovation and strategic knowledge on circular materials design and environmental impact studies; Product-service-system approach; and communication.

Team:

Luis Eslava; Pere Llorach PhD; Raúl Goñi; Judith Sole; Laia Pitch.

Outcomes:

Innovation Report

CarNet - Interior materials for shared cars



“Working on projects such as CarNET - Interior Materials for Car Sharing carried out for SEAT allows me to combine research, industry and academia and transfer knowledge between them. The professional challenges of the project were:

- Material requirements and characteristics definition, materials selection report, search of suppliers and Material Selection Box.
- Reduced cleaning and maintenance costs and increase vehicles’ life cycle. Enhance user-experience and increase attractiveness to car-sharing services.

From a research department of a university we can contribute to a project of a private company accompanying them in training and innovation through materials. We offer consultancy services, research, development of new materials and selection of commercial materials for product innovation and improvement.”

By Marta González, PhD.

A project on the research and scouting of materials complying with the needs for sharing car interiors. Definition of the main physical and chemical characteristics, as well as the market and quality standards, and delivery of a material box.

Team:

Marta González, PhD; Carlos Sáez; Judith González; Aina López.

Outcomes:

+ Innovation Report
+ Material Box

KENDU - Towards a circular economy



Kendu, a company dedicated to in-store visual communication solutions, seeks in collaboration with Elisava Research to evaluate the circularity of processes and materials by offering scalable solutions. Understand and analyze the processes throughout their life cycle through an analysis of materials, components and their use.

Team:

José López Aguilar; Saúl Baeza.

Outcomes:

- + Innovation Report
- + Prototypes

VIBIA - Well-Being Atmospheres



“Elisava Research is providing scientifically-based knowledge and design methodologies to decode VIBIA's universe, proposing a service that encourages the configuration of Well-being Atmospheres to create better spaces to live.

The current Covid-19 situation has promoted flexibility and digitalization of meetings and has taught us to value the presence and efficiency of joint work sessions.”

By Laura Freixas

Vibia Lighting, from its hub in Barcelona, has managed to unite its industrial and service skills to form a team that creates extraordinary products and unprecedented experiences. Vibia maintains an insatiable curiosity to create lighting products that influence the spaces in which they are applied with their light and presence, generating atmosphere, emotion and beauty, as a basis for well-being. The project consists of researching, exploring and finding innovative solutions from the areas of knowledge of Elisava Research: Human, Material, Technology and from the lines of research: Decoding Well-being, Circular Materials, Human interaction, Digital Distribution and Futures Now.

Team:

Pere Llorach, PhD; Anna del Corral, PhD; Laura Freixas.

Outcomes:

- + In process



European Projects

Key research outcomes:

- + How a EU project can be used to propose and promote a new design discipline and how creative skills can be used to generate new and alternative sustainable materials for a circular economy (MaDe)
- + How graphic and interaction design can be used to raise societal awareness on environmental issues (Plastic Justice)

MaDe - Materials Designers



“The MaDe project has allowed to create a blueprint for a new emerging role and discipline in design: that of Material Designers. We have trained 120 designers from all over Europe, have generated an Award that rewards materials through creativity towards circular economies, produced a book that is of reference to the sector, and have gained great communicative impact, with more than 12,000 Instagram followers and being selected as a key case study in the EU Green Deal.”

By Laura Clèries, PhD.

MaDe (Material Designers) is a competition, event series and platform devoted to realising the positive impact material designers can have across all creative sectors.

MaDe is a project, co-funded by Creative Europe Programme of The European Union, which aims at boosting talents towards circular economies across Europe.

Material Designers are agents of change. They can design, redesign, reform, reuse and redefine materials giving them an entirely new purpose. Increasing the potential of materials they can go on to research, advise, educate and communicate what materials are and can be in

the immediate, near and far future, implementing positive social, economical, political and environmental change across all sectors towards a responsibly designed future.

Team:

Laura Clèries, PhD; Pere Llorach, PhD.

Partners:

Politecnico de Milano, Ma-tt-er.

Outcomes:

- + MaDe Handbook “Materials for a circular economy: Toolkit for Creatives and Industry”.
- + MaDe workshops: 120 EU students will acquire appropriate skills to become Specialist Materials Designers.
- + MaDe awards: 3 winners will continue developing their career along the MaDe Stage Fellowships. MaDe awards consolidated.
- + MaDe exhibition will itinerate to Barcelona, Milano and London.
- + MaDe Online Platform: Open access to MaDe educational contents and resources for 5 years after the end of the project.

PLASTIC JUSTICE - Conscious design education



“Research is what I do, teaching, at the studio and at this my first Phd year at the University of Lisbon thanks to Elisava Research. Through action and practice based I try to design new realities for a social sustainable city. Plastic Justice Erasmus+ opened my vision about sharing and creating new knowledge working with 5 different schools in 5 countries. Forever Research!”

By Raul Goñi.

“The Plastic Justice project launched this year, and due to the pandemic it had to be reformulated from a normal Erasmus+. We couldn't meet in person, but that gave us the opportunity of having an ambitious kick-off seminar, with expert speakers from 6 different countries. The following learning activity had students from all project partners collaborating remotely to further deepen their understanding about Micro-Plastics.”

By Isabel Ordoñez, PhD.

Plastic Justice Project is a pan-European educational collaboration between five art and design academies in The Hague, Reykjavík, Barcelona, London and Vilnius. Together with regional scientists and NGOs committed to the environment, the educational program, which includes a conference, an exhibition

and a website, focuses on the long-term impact of invisible microplastics on the human body and the environment. Plastic Justice aims to create new knowledge through cross-academic exchange and field research that promotes the conscious design education for the next generation.

Team:

Isabel Ordóñez, PhD; Raul Goñi.

Partners:

Royal Academy of Art -The Hague (KABK), Vilnius Academy of Arts, Central Saint Martins -UAL London, Iceland University of the Arts (Reykjavík), ELIA -European League of Institutes of the Arts (Amsterdam)

Outcomes:

- + Plastic Justice Case Files: Online repository of information about microplastics and health.
- + Plastic Justice Advocacy: Teachers' guide with tools and methodology to include microplastics issues in the arts and graphic design curricula.
- + Plastic Justice Verdict: Policy brief based on the project results.



Company & Institution Projects

Key innovative actions:

- + Where behavioural sciences and interaction and user experience design interact to provide more humanized digital experiences in digital health (Telefónica Alpha)
- + Where social innovation reaches the streets and generates new quality interactions amongst citizens thanks to temporary space designs (Fundació la Caixa)

TELEFONICA ALPHA - Boosting Alpha-Health Digital Products



Telefonica Alpha-Health 'moonshot' researches into the development of digital products with the aim to improve healthy people's wellbeing.

Elisava Research can provide digital product design development within the subclinical division by translating research ideas into usable, testable prototypes before end of 2020. Specifically, Research through Design processes and User-centered Design.

Boosting Alpha-Health Digital Products.

Team:

Jonathan Chacón, PhD; Tona Monjo.

Outcomes:

- + Translation of research ideas currently in the Telefonica Alpha Innovation Funnel, into 6 testable prototypes
- + Test prototypes with users and synthesise feedback
- + Development of final interactive functional digital products
- + Contribution to TA's visibility, talent spotting and engagement with Elisava's network and community.

FUNDACIÓ LA CAIXA - Civic Placemaking 2



“The research project Civic Placemaking: Design, Public Space and Social Cohesion (CP) seeks to promote social cohesion and intercultural integration in an organic and effective way through ephemeral architecture projects that have a direct impact on public space, promote citizens’ proactive involvement in decisions about their environment, and foster a sense of belonging and civic implication. CP2 (Raval, Barcelona) focuses on exploring the capabilities of ephemeral architecture to promote young people’s interaction by introducing new temporary uses in public space.”

By Roger Paez, PhD

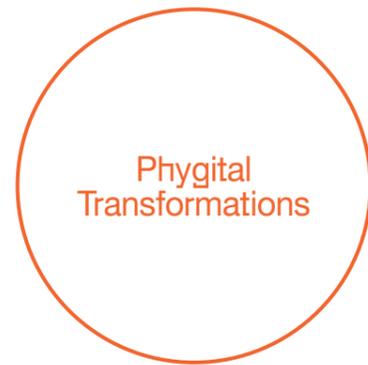
A social innovation on-going project whose goal the perception and use of the civic space, through research in operational cartography and subsequent development of an action in public space.

Team:

Roger Paez, PhD; Manuela Valtchanova.

Outcomes:

- + Civic Placemaking 2 BOOK (Innovation report)



European Projects

Key research outcomes:

- + Generating positive social impact in times of emergency through temporary space structures; and how Elisava can provide a 360° product and development service (FURNISH)

FURNISH



“ELISAVA Research is a founding member of the FURNISH consortium led by CARNET and financed by EIT-Urban Mobility. ELISAVA Research has also lead the Mentoring workpackage, where seven teams across Europe exchanged ideas and work processes, culminating in the design, digital fabrication, implementation and monitoring of seven urban prototypes adapting temporary public spaces to meet the new challenges and opportunities presented by the COVID-19 crisis.”

By Roger Paez, PhD.

The FURNISH project aim is to design, digitally fabricate, deploy, test and monitor urban elements to adapt temporary public spaces to meet the new challenges and opportunities presented by the COVID-19 crisis. FURNISH aims to merge the challenge of gaining more public space through tactical urbanism, which can reconfigure a street to expand the area for pedestrians and leisure, with local digital manufacturing, in order to accelerate positive change on mobility to make urban spaces more liveable.

Team:

Roger Paez, PhD; Toni Montes; Manuela Valtchnova; Danae Esparza, PhD.

Partners:

Municipality of Milan, AMAT - Milan's Agency for Mobility, Environment, and Territory, CARNET, Universitat Politècnica de Catalunya, IAAC – Institute for Advanced Architecture of Catalonia.

Outcomes:

+ Mini Design Award

- + A new core knowledge community of 7 partnerships between local citizens, fabrication facilities and their respective municipalities .
- + A series of Mobile Urban Elements (MUE) prototype optimized through iterative design and prototyping with collaborative expert guidance.
- + A new core knowledge community of 7 partnerships between local citizens, fabrication facilities and their respective municipalities
- + A pilot network of prototype MUEs designating 7 new public spaces spanning all 5 Innovation Hub territories.

An online platform disseminating an open source document portfolio for the application of tactical urbanism and local digital fabrication to rapidly expanding public space in emergency circumstances.

Publications

107

Elisava Research

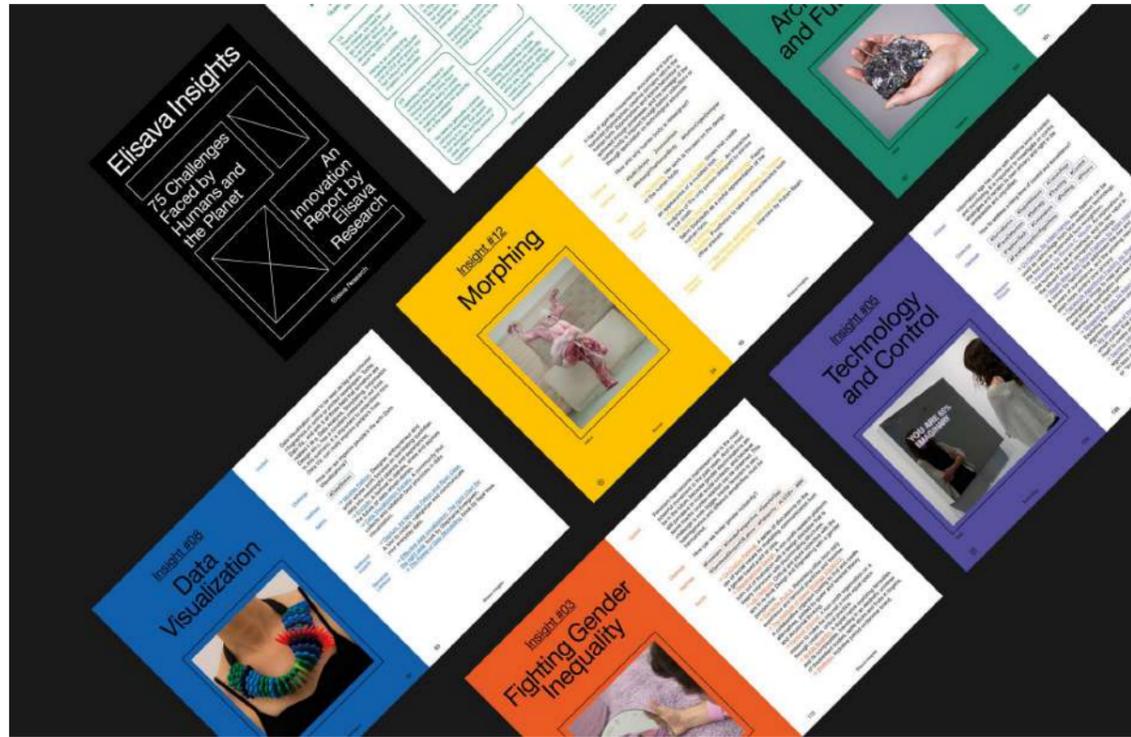
The Elisava Research Publications Functional Unit (ERFU Publications) was designed and structured with the aim to provide any Elisava researcher with the tools and guidelines to plan, develop and record any knowledge production. I understand the term “publication” in a very broad sense: something made public. First, I understand this “thing” as a product that, whether academic or divulgative, reaches as many people as possible. And at the same time, I understand “public” as synonymous with “shared”. Following these premises, ERFU Publications has been conceived as a space for internal use in Teams where Elisava researchers can share all those knowledge production projects they are working on and want to publish. First, share them to our own colleagues and, later, some of us have the task of managing the information and making it public outside the school through the –increasing– Elisava Research channels.

It is important to be able to share the work done, but it is no less important that those who have to do it feel accompanied along the way. For this reason, four basic tools have been created: a FAQ to help beginners, a database with journals and events where we can submit research in design and engineering, a calendar of open calls for these channels, and a repository of knowledge production (in process or published) by Elisava Research. But none of them make sense without everyone’s collaboration, and that is the primary goal: for everyone to adapt a collaborative mindset and share their knowledge and projects, so that everyone can benefit.

Publications are one of the main outputs for measuring Elisava Research’s knowledge production and, by extension, its impact. Only as a collaborative team will we get what is now an iceberg to become a mountain.

Guim Espelt, PhD Candidate
Publications Manager – ERFU Publications

Innovation Reports

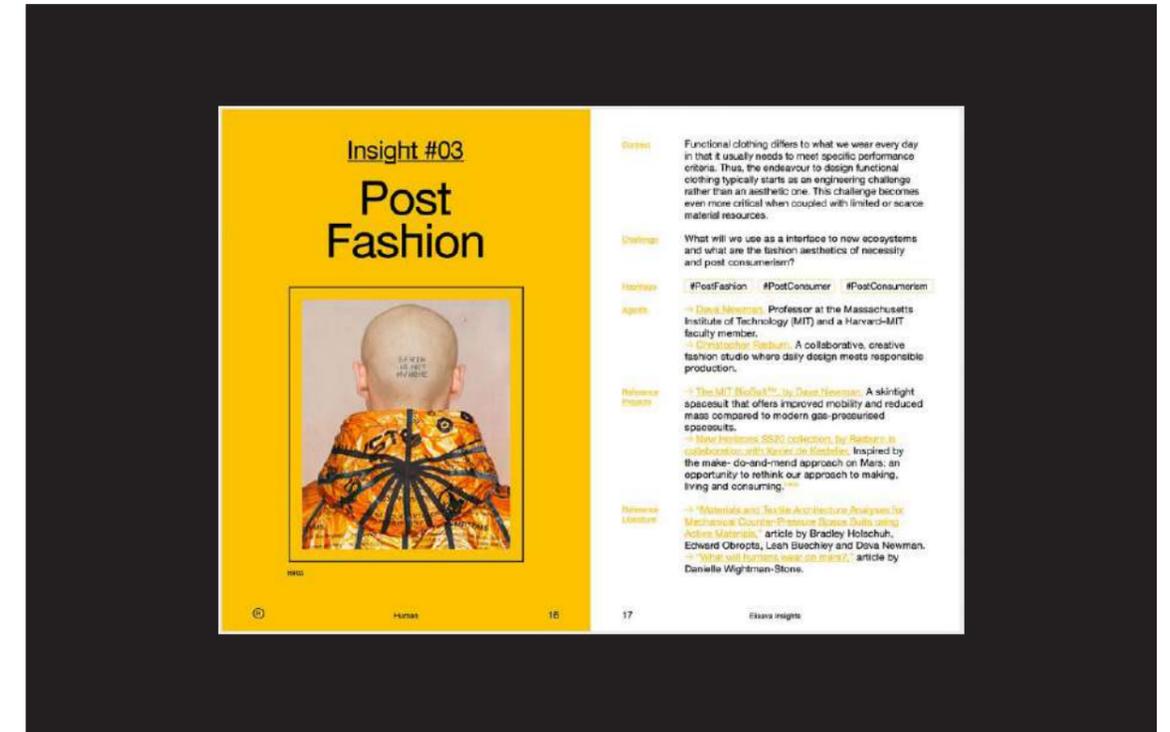


Elisava Insights

“*Elisava Insights* is a knowledge pack of 75 challenges faced by humans and the planet, to be used as an inspirational strategic foresight tool and as a starting point for collective dialogue and transdisciplinary synergies with stakeholders. The project started at the end of 2019, with the intention of generating a knowledge lighthouse, a guide for innovation for researchers, for degree and master students, and for companies and institutions looking to the future, with a relevance and scope for at least two years. We wanted to have an external perspective, so we appointed five experts from our research ecosystem, one for each knowledge area where Elisava Research has an impact. During 2020, more than 250 final year design students have used it as their initial inspiration and a point of reference for their final degree project, and more than 1,000 people have downloaded it as a reference document. During the outbreak of the pandemic, we generated a series of IG live Insights dialogues, as a way to spark off conversations in times of change and transformation.”
By Laura Clèries, PhD.

Outputs:

- + 1164 Knowledge Pack downloads
- + 1442 Dialogues views (IG Campaign)



Clèries, Laura, and Javier Peña, eds. 2020. *Elisava insights: 75 challenges faced by humans and the planet*. Barcelona: Elisava Barcelona School of Design and Engineering.
https://doi.org/10.46467/ElisavaResearch_Insights

Editors: Laura Clèries, PhD; Javier Peña, PhD.

Authors: Laura Clèries, PhD; Luis Fraguada, Pau García, Clara Guasch, Varvara Guljajeva, PhD; Toni Llàcer, PhD; Nicola Montaretto, Oscar Tomico, PhD.

Elisava Insights is a knowledge pack of 75 challenges faced by humans and the planet, to be used as an inspirational strategic foresight tool and as a starting point for collective dialogue and transdisciplinary synergies with stakeholders. Organized in the five transdisciplinary impact

areas where Elisava Research has its expertise, we have identified challenges such as: Can we increase the potential to empathise with not just other humans, but perhaps other species and ecosystems? How do we raise awareness on the importance of empathic communication in the digital era? Which materials can help us mitigate climate change? How to promote sense-making relationships with automated machines? How to explore and experience different realities? How can design help de-growth? How can design promote democratic values and fight misinformation.

As valuable as it may be for the whole design and engineering community, we have decided to make it open and available to all researchers, in order to instigate change and provide a tool for purposeful transformations beyond our ecosystem.

Periodical Publications



Visions by, no.2

“VISIONS BY is a knowledge platform and an annual magazine that addresses the different perspectives on materiality and material cultures from a critical and speculative research focus. It aims to generate awareness through materials beyond their physical properties and to consider materials as a new entitled discipline emerging from a design context.

2020 saw the release of our second issue, just 3 weeks after the covid lockdown. This issue was scheduled to be presented at Harvard University (Cambridge, Massachusetts), with a round table with different scholars from the sector. In addition, it was also scheduled to be presented alongside an exhibition we designed at MAST Books (New York). Everything is on hold for the third issue, coming out in June 2021, alongside a European tour of talks, exhibitions and events in Zurich, Berlin and Copenhagen.

Issue No. 2 was instead presented through an online campaign that led us to successfully close a deal with the renowned publishing house “Onomatopee” (Eindhoven, Netherlands), which, from now on, will be joining forces with Elisava Research and publishing VISIONS BY. Joannette van der Veer, from Onomatopee, had this to say about Visions By: “Your positive and pragmatic spirit and work ethic is something that felt really refreshing and energising. Next to that, I believe initiatives such as Visions By are extremely valuable within the field of design (and beyond) - the combination of visual and textual content, the topics you touch upon and the ways in which you communicate it, feels very unique and ‘in the now’. Visions By puts a refreshing perspective on making academic writing (and non-academic writing) on design more accessible and enjoyable.”

By Saúl Baeza, co-editor of Visions By.



Outputs:

- + 806 IG Followers
- Visions by, no.2
- + 3200 Campaign views
- + 300 sold magazines Worldwide distributed
- + 10973 Video views / 398 likes (IG Campaign)

Baeza, Saúl, and Laura Clèries, eds. 2020. *Visions by, no. 2*. Barcelona: Elisava Barcelona School of Design and Engineering.

<https://visions-by.com>

Editors: Saúl Baeza; Laura Clèries, PhD.

Authors: Arnau Anglada, Víctor Betriu, Diego Bustamante, Luis Carriere, Ernesto Castro, Juan de la Cruz Megías, Fred Erik, Katharina Hetzeneder, Daniel Riba, Ariadna Serrahima, Sara Torres, Jose María Torres Nadal, Pleun Van Dijk, Bernat Vázquez.



Temes de Disseny #36. Design Futures Now: Literacies and Making

“My experience in being a guest editor of *Temes De Disseny* was greatly enhanced by its excellent co-editor and editorial team and producers. The process was run from start to finish with a high degree of professionalism and an open mindedness and attention to detail one would hope to see in a peer-reviewed design research, online open access publication. The colleagues I met were not only polite and supportive, but gently and directly critical in research terms when necessary and quick to respond to needs and developments. I would endorse them and their work most highly.”

By Andrew Morrison, PhD, Co-guest Editor of *Temes de Disseny* #36. Director, Centre for Design Research, Oslo School of Architecture and Design AHO.

“In this 3rd yearly edition since its new repositioning regarding its publisher, it has been a pleasure to work alongside another co-guest editor on this special issue on Design Futures. The quality and international nature of the delivered articles has been exceptionally high, with 10 final articles selected following a double-blind peer review. It is just another step along the way towards positioning *Temes de Disseny* within the design and engineering scientific sphere.”

By Laura Clèries, PhD. Co-guest editor of *Temes de Disseny* #36.

Outputs:

- + 2657 Article visits at tdd.elisava.net
- + 436 Full issue downloads at research.elisava.net



Online presentation:

<https://www.youtube.com/watch?v=iF183ITCGBs>

- + 77 attended
- + 388 likes (IG Campaign)

+ TdD#35 was awarded a Laus Bronze'20 for the journal's graphic redesign.

<https://www.adg-fad.org/ca/laus/projecte/temes-de-disseny-35>

Morrison, Andrew, and Laura Clèries, eds. 2020.

“Design futures now: literacies and making”.

Special issue, *Temes de disseny* 36.

<http://tdd.elisava.net>

Editors: Andrew Morrison, PhD; Laura Clèries, PhD.

Authors: Ignasi Ayats Soler; Andreu Belsunces Gonçalves Nina Bjørnstad; Bani Brusadin,

PhD; Antonio Calleja, PhD; Paulina Cornejo; Tomas Diez; Palak Dudani; Erik Jan Hultink, PhD; Bjørn Johansen; Bastien Kerspern; Eva Knutz; Lenneke Kuijjer, PhD; Tau Lenskjold; Jimmy Loizeau; Thomas Markussen, PhD; Einar Sneve Martinussen, PhD; Javier Ricardo Mejía Sarmiento, PhD; Andrew Morrison; Raul Nieves Pardo; Karla Paniagua, PhD; Gert Pasman, PhD; Ezequiel Pini; Grace Polifroni Turtle; Mariana Quintero; Pieter Jan Stappers, PhD; Oscar Tomico, PhD; Matt Ward.

This issue of *Temes de Disseny* presents the challenge of framing design's role in futures making through a series of contemporary scientific works. Design Futures is a discipline with its own literacies and making methodologies, and aims to address the world's complexity and phenomena by delivering options and opportunities for alternative presents.

Books



Pursuing Publishing. Elise By Olsen in conversation

Baeza, Saúl, and Elise By Olsen, eds. 2020. *Pursuing publishing: Elise By Olsen in conversation*. Barcelona: Elisava Barcelona School of Design and Engineering. <https://www.elisava.net/publicacions/pursuing-publishing-elise-olsen-conversation> ISBN: 978-84-09-236848

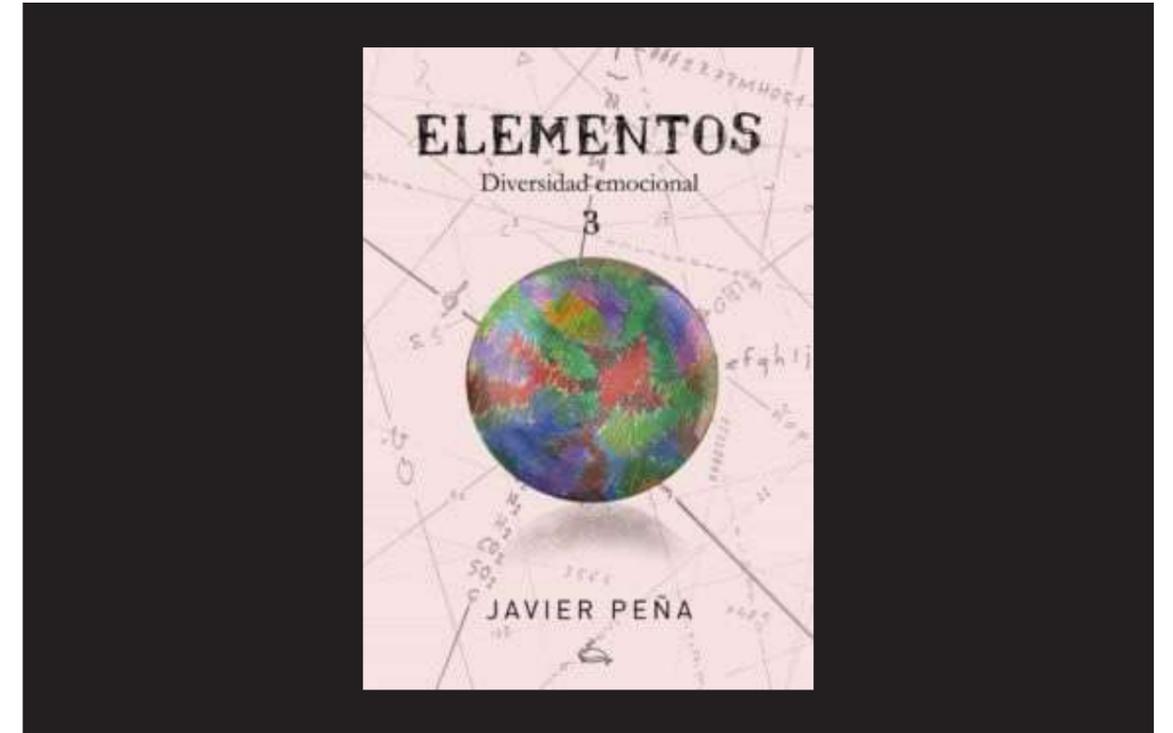
Editors: Saúl Baeza; Elise By Olsen

In June 2019 Elise By Olsen was invited to deliver the graduation lecture at Elisava. The lecture took form as a loose conversation with professor Saúl Baeza, taking her past, present, and future projects as points of departure to navigate freely through her thoughts, approaches, and techniques.

This conversation ended up taking somewhat of a retrospective look at the way By Olsen has manoeuvred through various projects and creative formulas, reconciling the realms of fashion, art and media, from a very early age onwards.

“I have a very specific duration to all of my projects and I have always had this specific narrative in mind”, explains the author. “Recens [Paper] was a very social and ideological kind of project, while Wallet is a more mature, text-heavy and critical project, so then maybe after this, I would want to go and do a highly commercial magazine or a visual publication or books. Or no publishing at all.”

More than a published lecture, this is a thorough sit-through of her narrative, publishing practice and what is becoming her career, to date.



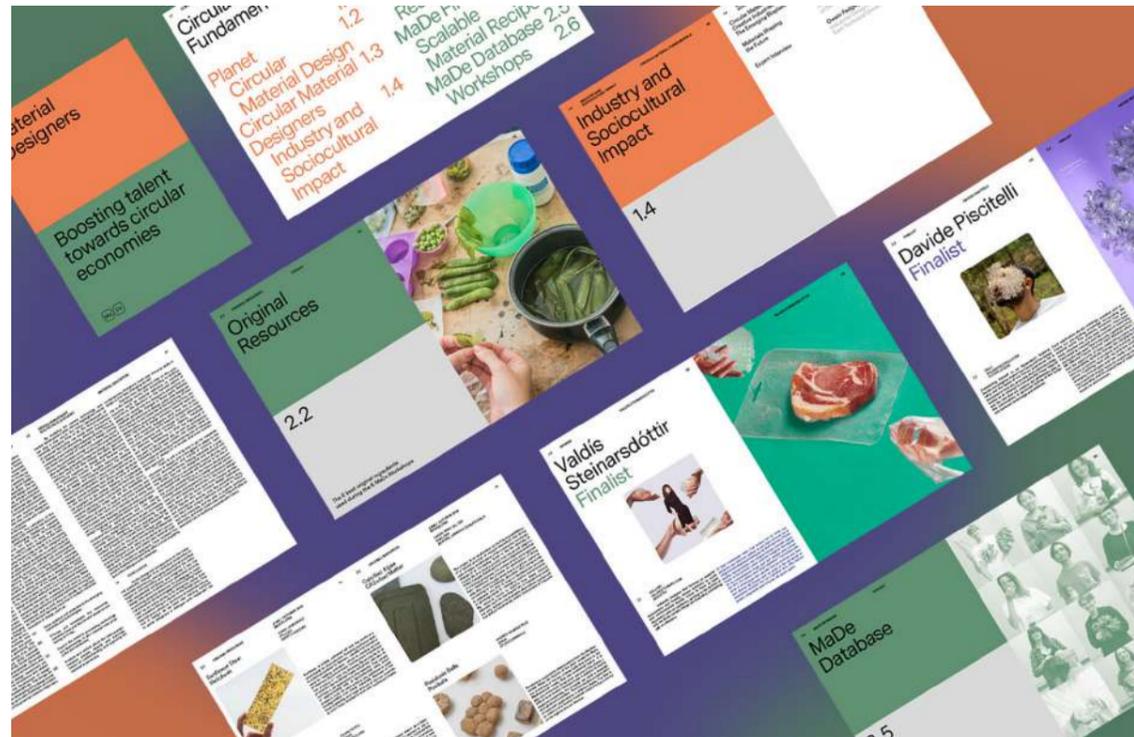
Elementos 3: Diversidad Emocional

Peña, Javier. 2020. *Elementos 3: Diversidad emocional*. Madrid: Tregolam. ISBN: 9788417564964

Author: Javier Peña, PhD.

Elementos 3: Diversidad emocional brings us closer to language and the world of matter in an entertaining way. With this objective, the novel brings to life several characters, who embody the chemical elements of the periodic table and who interact with each other and with their surroundings.

This third story starts from the relationship between AI and Ger, two students who experience their first love and who due to their relationship will be rejected and mistreated by their school classmates. Based on this premise, the author tells us about the importance of understanding the concept of diversity from the point of view of matter in order to understand the world more broadly and to avoid discrimination and injustice.



Material Designers. Boosting talent towards circular economies

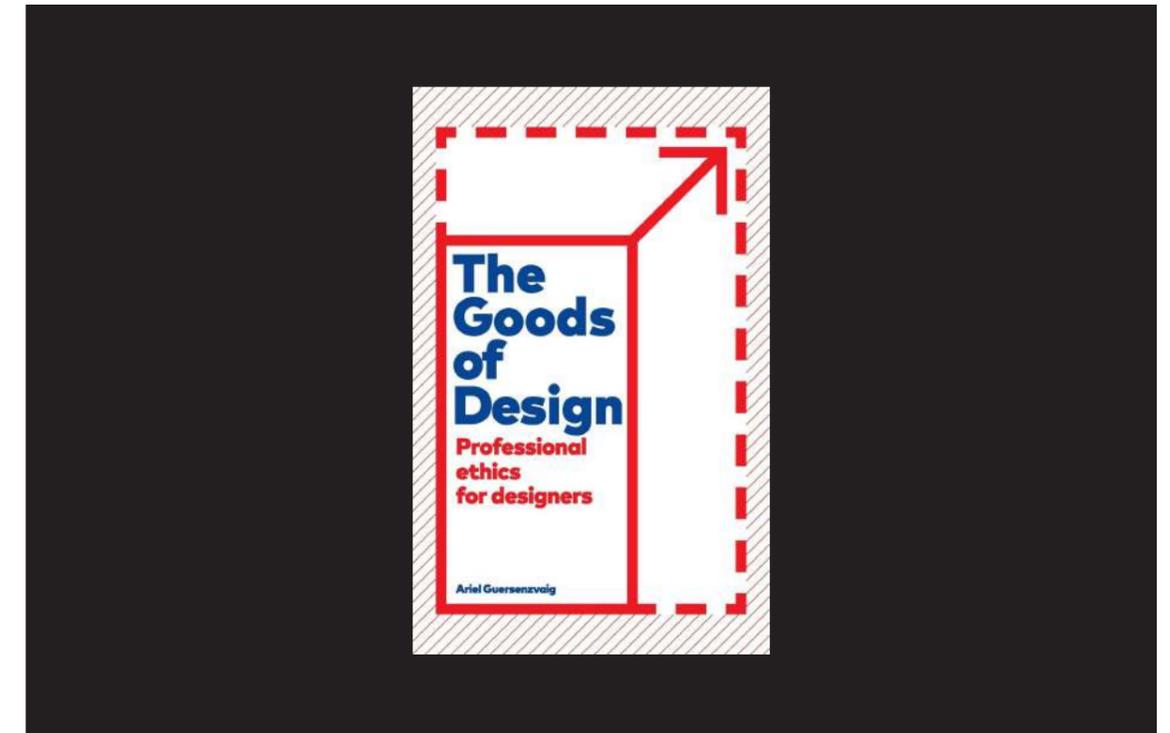
Clèries, Laura, Valentina Rognoli, Seetal Solanki and Pere Llorach, eds. *Material Designers: Boosting talent towards circular economies*. N.I.: Elisava Barcelona School of Design and Engineering; Politecnico di Milano; Matter. ISBN 978-84-09-24439-3

Editors: Laura Clèries, PhD; Valentina Rognoli, PhD; Seetal Solanki, Pere Llorach, PhD.

What if we used creativity to provide better circular economy solutions through the ideation of new materials? MaDe Book is a resourceful knowledge guide providing a better understanding on how materials design contributes to attain a more circular economy. Material designer is an emergent professional profile which has its roots in the

maker movement and whose role can have a positive impact in the development of a circular economy. Material Designers (MaDe) is a Creative Europe programme that addresses specific skills needs for designers within the circular economy paradigm. MaDe is a platform, a training program, an award and an event series showcasing and demonstrating the positive impact Material Designers can have across all industry and on the generation of an alternative creative industry aiming at circular economies.

The MaDe Book is the result of two year's work, with a compilation of expert articles and short interviews, a glossary of concepts, original resources, detailed finalists and winners' projects and the full directory of material designers.



The Goods of Design. Professional ethics for designers

Guersenzvaig, Ariel. 2021. *The Goods of Design: Professional Ethics for Designers*. Lanham, Maryland: Rowman & Littlefield Publishers. ISBN-13: 978-1786615404 ISBN-10: 1786615401

Author: Ariel Guersenzvaig, PhD.

What ends should designers pursue? To what extent should they care about the societal and environmental impact of their work? And why should they care at all? Given the key influence design has on the way people live their lives, designing is fraught with ethical issues. Yet, unlike education or nursing, it lacks widespread professional principles for addressing these issues.

Rooted in a communitarian view of design practice, this lively and accessible book examines design through the lens of professions, offering a critical vision that enables practitioners, academics and students of design in all disciplines to reflect on the practice's overarching purposes. Considering how these are connected to others' flourishing and moulded by community interactions, "The Goods of Design" argues for a practice-based approach to cultivate professional ethics; it provides a normative direction that can meaningfully guide professional design activity, both individually and collectively. The volume also looks into the implications work has for the designer's self-growth as a person, offering ways to discover and navigate the complex tensions between personal and professional life.

PhD Theses

Ingeniería Kansei en el campo del diseño: una aproximación desde la ingeniería aplicada a la percepción de los materiales

Abella Garcia, Ainoa. 2020. "Ingeniería Kansei en el campo del diseño: una aproximación desde la ingeniería estadística aplicada a la percepción de los materiales", PhD diss., (Universitat Politècnica de Catalunya). <http://hdl.handle.net/10803/671760>

Author: Ainoa Abella Garcia, PhD.

Directed by: Lluís Marco-Almagro, PhD (UPC) and Laura Clèries, PhD (Elisava)

The objective of the current doctoral thesis is the theoretical and experimental application of Kansei engineering in the field of design. Kansei engineering is a method that aims to develop or improve products, services and/or experiences by translating the emotional needs of users into parameters or characteristics of the design itself. In the present investigation, Kansei engineering uses as a base statistical engineering, since the most appropriate statistical and analytical methods are used to provide value, validity and rigor.

The first contribution of the thesis is the creation of a Theoretical Framework of the emotional dimensions –sensation, perception, emotion, feeling and affect– as a result of a systematic review in two scientific databases. The objective is to promote the integration of emotions during any stage of the creative process; therefore, a common taxonomy is developed with definitions, theories and measurement tools for each of the emotional dimensions. In addition, three figures

–Emotional Path, Emotional Systematization, and Preliminary Mapping of Design and Emotion– have been created in order to synthesize all information and to be used as visual guides.

Once the state of the art is developed, the research has focused on two different topics related to Kansei engineering and its updating in the 21st-century context: communication channels and measurement tools. For this, the materials are selected as the scope of application.

Regarding Communication Channels, two case studies are carried out –pilot test and experiment– in order to understand how user perception may vary depending on the interaction and the amount of information received. In the experimental design, three materials are presented through three different communication channels to evaluate their sensory properties. In some cases, people evaluate the same material for each channel and in others, each participant evaluates a different material per channel, through the Perception Evaluation Kit. The results indicate that in some communication channels there are significant differences regarding the perception of sensory properties. Responses level in both experiments is very similar, that is to say, the order of presentation for the communication channels does not seem to influence perception. In addition, channel 3 is the preferred one regardless of the predominant learning style.

The contribution concerning the Measurement Tools chapter is to apply a heterogeneous methodology that uses self-report and physiological tools to assess the perception of recycled materials, as well as the environmental attitude and consumption habits of the participants. The purpose is to detect if there is any relationship between the information that is extracted from the two types of tools. Electrodermal activity, hedonic appreciation, and evaluations of sensory properties have reported significant differences between materials. In contrast, electromyography, the precision in the identification and the relationship between consumption habits and environmental attitude have not observed significant effects or interactions in the data.

Finally, the Statistics and Design section reflects on the relationship and union of the two disciplines and presents two points of confluence between these –statistical engineering and Data-Driven Design–. The contribution of this chapter is the Data Collection Toolkit, a set of methodologies, resources and tools for designers. The objective is to promote better practice in research through design so that the experiment has greater validity and statistical base.

Keywords: Kansei engineering, design, statistical engineering, emotional dimensions, communication channels, measurement tools, education, methodology.

El grafè: comunicació i transferència de coneixement a través de la premsa online i de metodologies de disseny participatives

Guasch Balcells, Blanca. 2020. "El Grafè: comunicació i transferència de coneixement a través de la premsa online i de metodologies de disseny participatives", PhD diss., (Universitat Pompeu Fabra).

<http://hdl.handle.net/10803/669318>

Author: Blanca Guasch Balcells, PhD.

Directed by: Sergi Cortiñas, PhD (UPF) and Marta González, PhD (Elisava)

The rapidity with which science evolves every day makes it almost impossible for society to be well informed about the latest scientific advances. This makes it difficult for decision-making and the public engagement in science. This thesis analyzes the communication that is being carried out on a relevant scientific advance in materials science: graphene, a two-dimensional material isolated for the first time

in 2004, which has unique and exceptional properties. Besides that, a new communication channel for graphene is proposed through the application of participatory design methodologies in cooperative workshops with experts, non-experts, and high school students. The results reveal that the information transmitted in the press has a markedly positive tone; that electronics is the sector of greatest interest for the application of graphene, and that research and funding are the most commented topics, among others. On the other hand, participatory design methodologies have proven to be useful for connecting graphene with different industry sectors, with society, and with the educational field. Moreover, they provide other social, cultural, and economic benefits.

Keywords: Graphene, Science communication, Knowledge transfer, Participatory design methodologies, Design thinking, Public engagement with science, Online press, Legitimation, Dissemination and teaching.

Análisis y definición de las competencias creativas de los diseñadores: creación de herramientas para el análisis de las competencias para su aplicación en el ámbito educativo y profesional del diseño

Martínez Villagrasa, Beatriz. 2020. "Análisis y definición de las competencias creativas de los diseñadores: creación de herramientas para el análisis de las competencias para su aplicación en el ámbito educativo y profesional del diseño", PhD diss., (Universitat Pompeu Fabra).

<http://hdl.handle.net/10803/669637>

Author: Beatriz Martínez Villagrasa, PhD.

Directed by: Sergi Cortiñas, PhD (UPF) and Danae Esparza, PhD (Elisava)

This doctoral thesis shows an investigation about the designer's creative competencies. In order to identify them, were used qualitative and quantitative methods. Qualitative data were collected from fourteen professionals and students in the field of design and engineering were interviewed. Also a case study of a product

design company was carried out. Moreover, non-participant observations of 105 young designers in three European Universities. Quantitative data were collected from an online questionnaire, the Creative Decoding Tool. The survey assembles the designer's self-perception of their competencies in a global level. A sample of 1025 responses was analysed. Results obtained showed differences in the designers responses depending on their socio-demographic conditions. Also common designer's behaviours were identified. Collected information is useful in co-assessment and debate sessions in order to promote self-reflection about their design process. Furthermore, the tools and the methodologies developed can be used for future researches.

Keywords: Creativity, Design process, creative process, competencies, creative competencies, design education, design theory, design practice.

Journal Papers

Framework of Emotional Dimensions: Definitions, Theories, and Measuring Tools for Design

Abella Garcia, Ainoa , Laura Clèries Garcia, and Lluís Marco Almagro. 2020. "Framework of Emotional Dimensions: Definitions, Theories, and Measuring Tools for Design". *The International Journal of Design Management and Professional Practice* 13(3): 13-29. <http://doi.org/10.18848/2325-162X/CGP/v13i03/13-29>

Emotional dimensions have been dealt with in various disciplines for their transdisciplinary implication, and, therefore, complexity. These circumstances have led to a situation in which there is confusion and a lack of consensus about these emotional dimensions and their respective definitions. The aim of this article is therefore to analyze and classify emotional dimensions

by collecting information from different disciplines through a systematic literature review methodology. The result is the creation of a common language and framework of definitions and theories, allowing the evaluation of strengths and opportunities for application and innovation, especially in the field of engineering and design. Five emotional dimensions have been identified and defined—sensation, perception, emotion, feeling, and affect—and have been correlated with specific measurement tools from various disciplines. This article ends by proposing an emotional path and a procedure for action based on the needs and objectives of the study.

Keywords: Emotional Systematization, Transdisciplinary Theories, Measuring Tools, Updating Engineering Design.

Emotional Analogous Data: Interaction in the Work Space

Araya León, María José, Ainoa Abella, Ricardo Guasch, Alberto Estévez, and Javier Peña. 2019. "Emotional Analogous Data: Interaction in the Work Space". *Modern Environmental Science and Engineering* 5(12): 1183-1194. <http://www.academicstar.us/issueshow.asp?daid=2913>

The work environment and its architectural configuration increasingly seeks to give a conscientious response to the needs of its users as the built environment influences the health and well-being of people through biological and psychological aspects. Considering that human beings base their behavior on emotion, it is essential to expand this domain regarding how space controls, steers, or alters one's emotional state and how this interaction affects perceptions of well-being, health, and productivity. This article sets out a case study applied at the offices of ELISAVA Research, Barcelona, which seeks to understand the emotional state of users in terms of space. The participants consisted of four women and two men. The materials and tools used

for the study consisted of: an am/pm emotional assessment wall, facial expression stickers for each user related to 5 emotions, and environmental measurement tools. Emotional state measurements were made regularly, when entering and leaving the space. Various changes were also applied, which were identified on the wall, and qualitative perception and productivity tests were applied at the end. This study aims to correlate psychological, environmental, and energy aspects to understand their relationships and, in parallel, to validate new measurement tools. Direct correlations between physical parameters and user perception, such as light, humidity, etc. have been observed in the results as well as others that should continue to be explored, such as energy, comfort, and sociability, among others. In doing so, we aim to offer scientific data that can impact project processes, ergonomics, and design guidelines focused on the holistic well-being of individuals.

Keywords: Emotion, perception, work spaces, interaction, ergonomics.

Heterotopia work: correlation between the domestic built environment and home offices during COVID-19 confinement

Araya León, María José, Ainoa Abella, Ricardo Guasch, Alberto T. Estévez, Javier Peña. 2020. "Heterotopia work: correlation between the domestic built environment and home offices during COVID-19 confinement". *Strategic Design Research Journal* 13(3).
<http://revistas.unisinos.br/index.php/sdrj/article/view/sdrj.2020.133.25>

The new COVID-19 context has transported work to a domestic setting. These new locations, heterotopic, do not always adequately respond to user needs.

This paper explores the relationship between the domestic built environment and certain elements that shape it, the perception, emotional state and productivity of the users.

A pilot case study was carried out with 11 volunteers who evaluated their home offices

for seven work days using physical environment tools, two tests -fixed data and daily evaluation-. Also, environmental parameters of the territory were monitored.

Among the main findings, we observed that the perception of size does not relate to actual size; a balcony is associated with happiness and calm. We have verified how biophilic elements promote well-being. Happiness and calm are related to high and low levels of lux. There is a tendency of happiness associated with collaborative tasks, and calm with individual ones.

This article opens up a path for exploratory research on resilient situations in which physical barriers force people to seek creative solutions and offers tools to empower users. Current trends in data-driven design and teleworking support research proposals like this one, with a focus on well-being, productivity.

Arts and Crafts: For the Promotion of an Ecosystem of Culture, Knowledge, and Entrepreneurship

Araya León, María José, Isabel Torres, and Fernanda Ramírez. 2020. "Arts and Crafts: For the Promotion of an Ecosystem of Culture, Knowledge, and Entrepreneurship". *The International Journal of Interdisciplinary Cultural Studies* 15(1): 1-11.
<http://doi.org/10.18848/2327-008X/CGP/v15i01/1-11>

Handicrafts, arts, and crafts have been an image of cultures and places, promoting the tradition of the handmade, which has been handed down from generation to generation. Nevertheless, as a result of the increased use of technology and globalization, this important sector is dying out. This phenomenon is observed in different countries and cultures, especially in those where mass products are more valued. This is how the phenomenon of the extinction of handicrafts, arts, and crafts (HAC), is presented as a social transformation that requires greater understanding and analysis from an interdisciplinary approach. This article proposes to extract, from the members of three different cultures—Chile, Spain, and Italy—the possible common elements in this process of extinction that have arisen in these countries, through the methodology of Grounded Theory. Open interviews with institutions, artisans,

and professionals linked to the arts and crafts sector, which have made their knowledge and tradition a way of life and also a way of income generation. According to the findings of this research, common elements emerge from these three countries that explain the phenomenon of the extinction of the HAC. Nevertheless, at the same time it is seen that the survival of the sector is due in part to the promotion of cultural entrepreneurship, the cultural project, and cultural education. All these elements converge on the need to generate interdisciplinary education as material for the resurgence of this sector, through the promotion of "cultural entrepreneurship." Furthermore, the so-called creative industries encourage reinstituting these traditions to place them in a contemporary context, at the same time taking advantage of the exponential growth of technology. The union of all these elements will close gaps and unite areas of culture, territory, creativity, and business, improving the participation of future entrepreneurs and promoting public policies that help to reverse the negative effects of the HAC extinction phenomena so far experienced.

Keywords: Handicrafts, Arts and Crafts, Cultural Heritage, Identities, Cultural Entrepreneurship, Grounded Theory.

Soporte al profesorado novel en diseño y comunicación. Workbook: Cosas de profes

Arrausi, Juan Jesús, and Paulina Montenegro. 2020. "Soporte al profesorado novel en diseño y comunicación. Workbook: Cosas de profes". *Grafica* 8(15): 17-31.
<https://doi.org/10.5565/rev/grafica.164>

This study proposes an asynchronous dialogic interaction between the needs detected in novel teachers and the expert peer advices. The objective is to understand and provide a support instrument for the teaching staff that starts in the university field of design, creativity, and communication. 13 competency models have been studied.

The methodology is qualitative. Two analytical tools are used: intrapersonal reflection activities aimed at 10 new teachers, and semistructured interviews with 10 senior teachers. The results generate the publication of a workbook, capable of contributing to reflective teaching practice. It is expected to implement teaching-learning actions in order to be relevant, sustainable and emotionally balanced.

Keywords: Novice lecturers, reflective practice, teaching through design, lecturer competencies, workbook.

Design futures now: Literacies and making

Clèries, Laura, and Andrew Morrison. 2020. "Design futures now: Literacies and making". *Temes de Disseny* 36: 8-15.
<https://doi.org/10.46467/TdD36.2020.8-15>

This issue of *Temes de Disseny* addresses a mix of topics concerning how design literacies and design making may be understood as 'future facing'. By doing so, we convey the ways and means design practice and design education may be positioned and activated to work prospectively and be ahead of current concerns with environmental, social and ethical challenges. Doing so also means tackling tough, complex and often unknown problems and offering

potential and imaginary responses. Accordingly, tools and techniques originating in futures studies intertwine with design practices offering exploratory, methodological and anticipatory work on how we might shape our futures through design together. Literacies as design futures making and making futures literacies by design are therefore featured in this special issue of the journal.

Keywords: Design Futures, complexity, multiplicity, timeframes, people, attitudes, transdisciplinarity, methodology, making, literacies, purpose, network.

Exploring Weak Signals to Design and Prototype for Emergent Futures

Diez, Tomas, Oscar Tomico, and Mariana Quintero. 2020. "Exploring Weak Signals to Design and Prototype for Emergent Futures". *Temes de Disseny* 36: 70-89.
<https://doi.org/10.46467/TdD36.2020.70-89>

While technology and design have progressed greatly, they have also produced imbalances that affect the way we live and work. Additionally, they have also contributed to the use of the planet's resources to fill our homes with unnecessary devices and objects. We must de-objectify and de-colonise the way we design technologies to make for more inclusive and diverse futures. One way to do that is to recognise our shortcomings and experiment with them in a way that is productive and promotes a more peaceful coexistence among living systems. This research explores the concept and practice of identifying these shortcomings via the "Atlas of Weak Signals". The Atlas is a tool for combatting future challenges by actively creating

opportunities for design interventions to dissolve the troubling problems of our times. In order to support this claim, we present and analyse a series of projects developed over the course of a master's programme. Specific emphasis is placed on how the Atlas of Weak Signals was generated between students and faculty as a methodology to better understand the view of the world in which we live today from the one in which we design from. The projects are mapped in relation to emerging trends in both local and global contexts and the interconnections between these trends as generators of design opportunities. To conclude, we present the lessons we learned in the form of a toolkit so other design practitioners, researchers, teachers, and students can generate their own methods and tools.

Keywords: Emergent futures, weak signals, designing interventions, making futures, material speculation, first person perspective.

Educational toolkit based on design methodologies to promote scientific knowledge transfer in secondary schools: A graphene-centered case study

Guasch, Blanca, Marta González, Sergi Cortiñas. 2020. "Educational toolkit based on design methodologies to promote scientific knowledge transfer in secondary schools: A graphene-centered case study". *Journal of Technology and Science Education* 10(1):17-31. <http://dx.doi.org/10.3926/jotse.787>

Nanoscience and nanotechnology are two key areas in the development of new technologies. However, scientific advances in these fields are still far removed from the contents taught in schools. But what if basic concepts within these areas were introduced in secondary schools? We believe science is an essential facet of culture and the most recent scientific advances should be within everyone's reach. With this in mind, we have developed and tested an educational toolkit to transfer complex scientific concepts in classrooms. The toolkit is based on design and creative thinking methodologies, and graphene is used as an example of a subject that is challenging to communicate within the area of nanoscience. This paper highlights the

development of the toolkit and it being tested out in a secondary school by 93 students between the ages of 11 and 13. The testing was carried out through the creation of a workshop called "Graphene in the Classroom." We determined five evaluation categories: Acquiring Knowledge, Satisfaction, Challenges, Teamwork, and Facilitator's Role. The results show that integrating scientific content and design methodologies is a complex yet profitable strategy. The toolkit demonstrated to allow the translation of a complex language into friendlier, more approachable, and easier language. The classroom climate was positive and the presence of a facilitator enhanced motivation, empathy, scientific rigor, and adequate adaptation of contents.

Keywords: educational toolkit, graphene, nanotechnology, knowledge transfer, design methodologies, science education.

Designing ultra-personalized product service systems

Nachtigall, Troy, Svetlana Mironcika, Oscar Tomico, and Loe Feijs. 2020. "Designing ultra-personalized product service systems". *CoDesign* 16(4): 274-292. <https://doi.org/10.1080/15710882.2020.1842454>

Design games are rarely used to design shoes but data and emerging digital fabrication systems are rapidly changing how designers make things. We envision a near future where shoes are personalised using algorithmic, parametric, and generative systems that are data-driven. In this article, we describe and deploy a design game for shoes to help designers create circular Ultra-Personalised Product Service System. Designing such products (that include services supported by systems that last over product lifetimes) presents a multitude of challenges; product challenges in negotiating design considerations,

service challenges in customer journeys and systemic challenges in creating data flows. The UPPSS game was designed to help scaffold designers in confronting these challenges. The UPPSS game was deployed with 16 industrial design students over nine weeks where shoes, services, and systems were all made using code to program personalisation systems. Each participant wrote a reflection on the process. The reflections were analysed to see how the design game resulted in facing the challenges and learnings of a UPPSS. Conclusions are presented from the challenges and opportunities confronted in the game, and what it meant to the emerging practices of designing a UPPSS.

Keywords: Design game, Ultra-Personalised Product Service System, shoe-making; research through design, models of production.

Knowing together: experiential knowledge and collaboration

Nimkulrat, Nithikul, Camilla Groth, Oscar Tomico, and Julia Valle-Noronha. 2020. "Knowing together: experiential knowledge and collaboration". *CoDesign* 16(4): 267-273. <https://doi.org/10.1080/15710882.2020.1823995>

This Special Issue examines collaboration within research teams of professionals, researchers, and other stakeholders with diverse disciplinary expertise. It aims to understand how individual experiential knowledge – or knowledge gained by practice – is shared, how collective experiential knowledge is accumulated and communicated in and through collaboration in interdisciplinary

research. The experiential knowledge generated through collaborations between experts in various fields are discussed in four studies that illuminate the relationships established within the collaboration, the approaches used, and the new knowledge gained and transferred within the team. This should contribute to a more systematic approach for studying and integrating experiential knowledge exchange in collaborative practice and research.

Keywords: Collaboration, creative practice, experiential knowledge, interdisciplinary research, knowledge exchange.

Representation of the Contextual Framework of an Applied Research

Pozo Puértolas, Rafael, and José Manuel Martínez Bouza. 2020. "Representation of the Contextual Framework of an Applied Research". *American Scientific Research Journal for Engineering, Technology, and Sciences* 74(1): 15-30. https://asrjetsjournal.org/index.php/American_Scientific_Journal/article/view/6378

When a Higher Education student considers the possibility of developing an applied research, regardless of the academic level they are studying, it is common for questions to be solved such as: how to interpret the information and data that are manifested around their investigation; or determine the most appropriate position to develop their inquiry in the most objective way possible. From our perspective as counselors, we observe that these issues produce many doubts among students, and that sometimes they cause a situation of temporary blockage that is complex to manage. If to this

situation is added the need to communicate regularly to their counselors the progress and status of their research, it is possible that the student experiences a process of cognitive dissonance between: what they observe, what they think, what they manifest, and what they are capable to express through the content of their writings. Focused on this problem, our theory on the chaos of the creative, provides some keys as a solution that is useful to control the information and data of an applied research, make an abstract scheme as a representation of a possible contextual framework of exploration and epicenter of the different stages of your research.

Keywords: Contextual framework, verbal communication, non-verbal communication, written communication, higher education, applied research.

Urban commoning practices in the repair movement: frontstaging the backstage

Zapata Campos, María José, Patrik Zapata, and Isabel Ordoñez. 2020. "Urban commoning practices in the repair movement: frontstaging the backstage". *Environment and Planning A: Economy and Space* 52(6): 1150-1170. <https://doi.org/10.1177/0308518X19896800>

Citizen-led repair initiatives that collectively create urban commons, questioning the configuration of production, consumption, and discarding within neoliberal capitalism, have emerged in recent years. This paper builds on recent discussions of the openness of the commons by examining the role of repair in commoning. It is informed by the case of the Bike Kitchen in Göteborg, using in-depth interviews as well as ethnographic and visual observations to support the analysis. Through repair practices, commoning communities can reinvent, appropriate, and create urban commons by transforming private resources – bicycles – creating common, liminal, and porous spaces between state and market. This openness of the commons allows commoners to shift roles unproblematically, alternating between the commons, state, and market. We argue that

commoners' fluid identities become the vehicle by which urban commoning practices expands beyond the commons space. This fluidity and openness also fuels the broad recruitment of participants driven by diverse and entangled rationales. Beyond the porosity of spatial arrangements, we illustrate how the dramaturgic representation of space, through simultaneous frontstaging and backstaging practices, also prevents its enclosure and allows the creation of openings through which urban commoning practices are accessed by newcomers. Finally, we call into question strict definitions of 'commoner' and the commoning/repair movement as limited to those who are politically engaged in opposing the enclosure of the commons. Rather, commoners become political through action, so intentionality is less relevant to prompting social change than is suggested in the literature.

Keywords: Commons, repair movement, frontstaging and backstaging practices, politics of repair, Bike Kitchen.

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Impact in numbers

141

Elisava Research

At Elisava Research we have a proprietary approach to measuring impact by design research. We measure impact under four concepts: Excellence, Resilience, Engagement, and Attitude. Excellence measures the quality and number of scientific research outcomes, be it either in the form of publications, patents, tech transfer and/or academy transfer products. Resilience measures the competitive public projects and the company projects, as a way to fund research towards financial resilience. Engagement is related to the social impact that we are generating, so far being measured through the social media impact data. Attitude is a concept that relates to our personal and relational capacity to conduct research, as well as the organizational structure and processes that research, as an innovative endeavour, needs to be supported with.

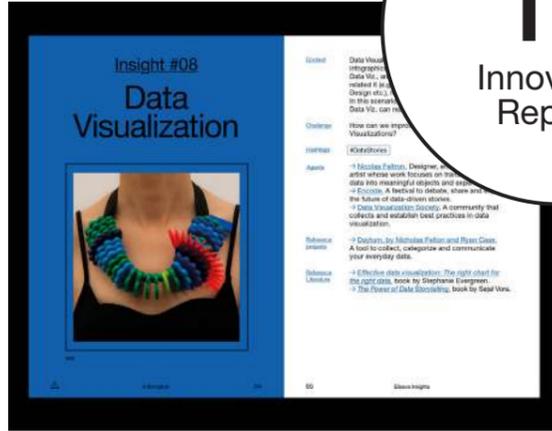


Excellence

Excellence measures the quality and number of scientific research outcomes, be it either in the form of publications, patents, tech transfer and/or academy transfer products.

Outcomes

10
Innovation
Reports



1
Material
Box

1
Periodical
Publication



1
Periodical
Design
Research
Journal



11
Journal
Papers



1
Book
Chapter

1
Research
Audio-visual



3
Brands



4
Published
Books

3
Dissemination
Articles

3
PhD Thesis



10
Conference
presentations
and posters

Academy

Chromdesign (6)
 Plastic Justice (4)
 Regenerative Bioprinting (5)
 Shaping the Creative Process (3)
 Smart Ink: Biodynamic Inks (15)
 The Human Upgrade Movement (11)
 Decoding Well-being healthy spaces (3)
 Informed Living Materials (5)
 MADE - Circular Materials (4)
 Moving Textiles (11)

67 Research Undergraduate Thesis

Mention in Research (25)
 Master's Degree in Design for Emergent Futures (19)
 Master's Degree in Data Design (7)
 Master's Degree in Design through New Materials (14)
 Master's Degree in Industrial Design Engineering (10)
 Master's Degree in Ephemeral Architecture and Temporary Spaces (13)

88 Research Master Thesis

Prizes



Laus Bronze Award for Temes de Disseny



Mini Award Design for VORA

Resilience

Resilience measures the competitive public projects and the company projects, as a way to fund research towards financial resilience.

Projects

Company Projects	PMMT ARCHITECTS - The future of hospitals	CarNet - A design fiction film about the future of mobility
KENDU - future of retail - Systems and experiences	LIVING LAB - CENFIM Decoding Well-being hospitality and retail spaces	KAVE HOME - Towards sustainability identity
CarNet - Interior materials for shared Cars	KENDU - Towards a circular economy	VIBIA - Sustainable Atmospheres
Telefonica Alpha - Boosting Alpha-Health Digital Products	Fundació La Caixa - CIVIC PLACEMAKING 2	
European Projects	FUEL4Design - Future education and Literacy for Designers	INTRIDE. Soft, digital & green skills
CAMS - Adapted Motosharing Services	ChromDesign - Training the next generation of researchers	MaDe - Materials Designers
Plastic Justice - Conscious design education	FURNISH	

7 EU projects
10 Comp. projects



50 Partners

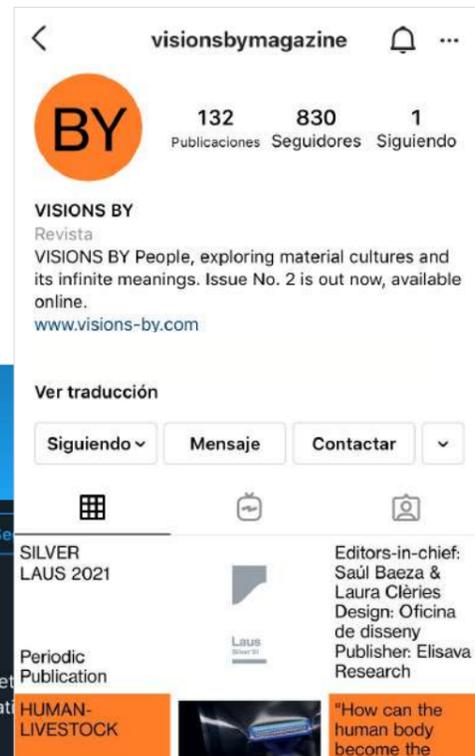
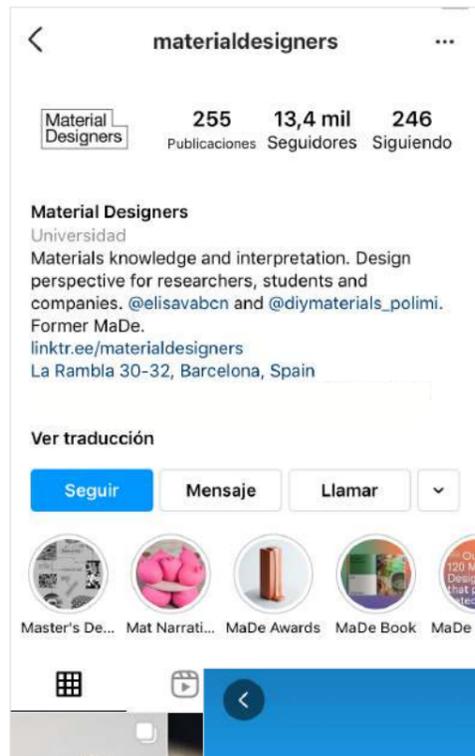


Engagement

Engagement is related to the social impact that we are generating, so far being measured through the social media impact data.

Social Impact

1,6k Knowledge Outcomes Downloads



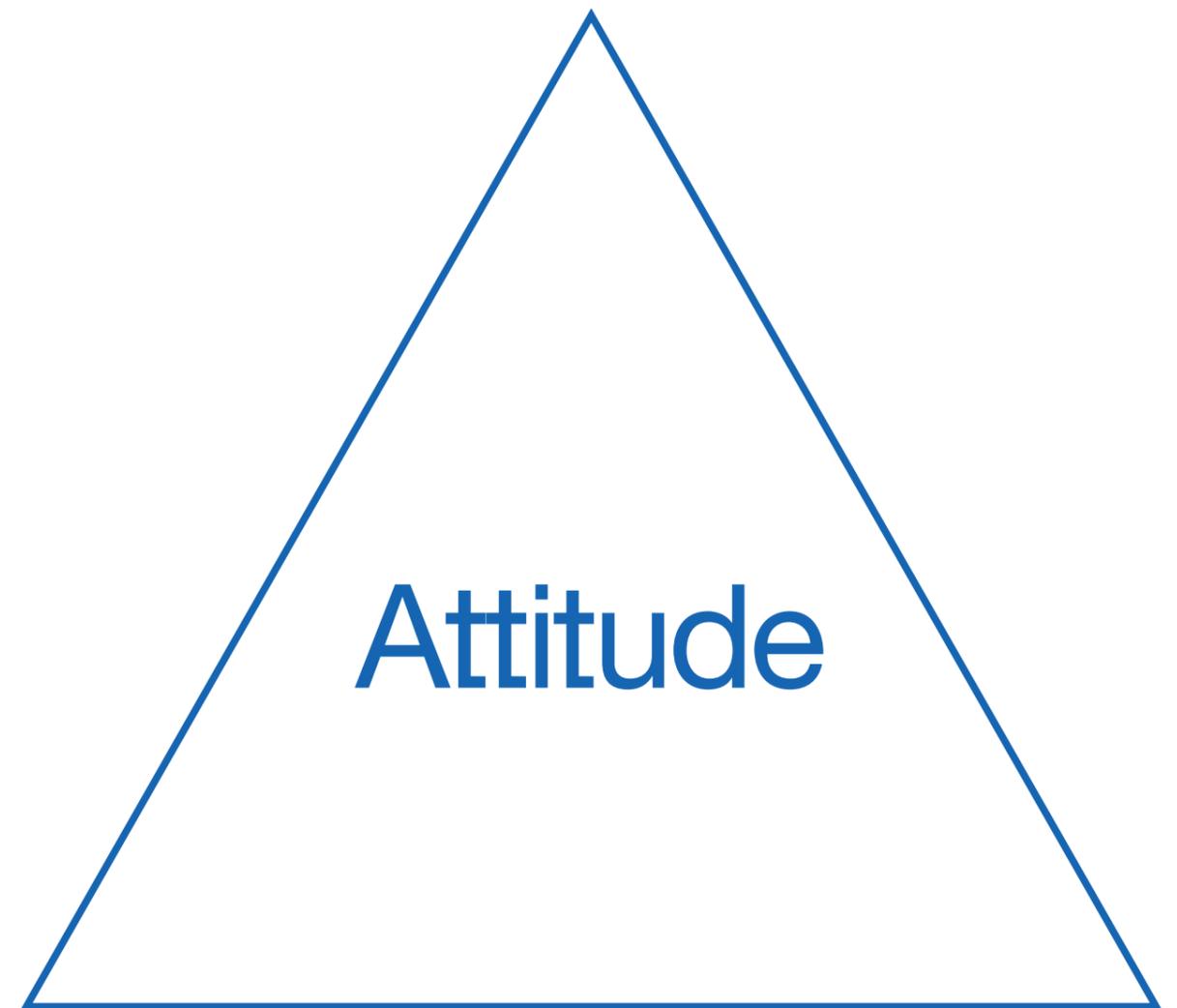
+12,9k Followers throughout our project accounts on social media

Press Coverage

38 Publications

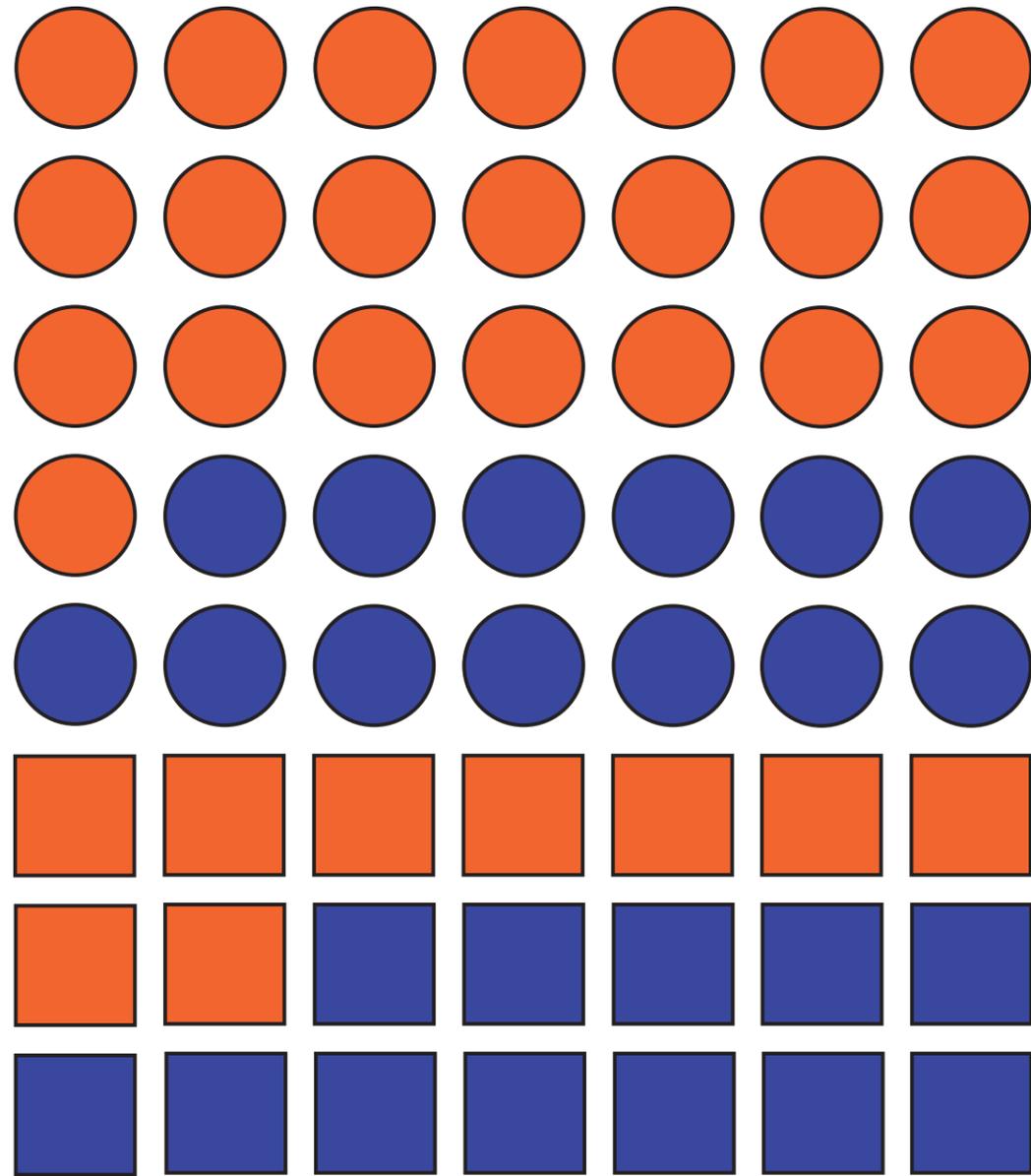


13M Average audience (13.200.161)



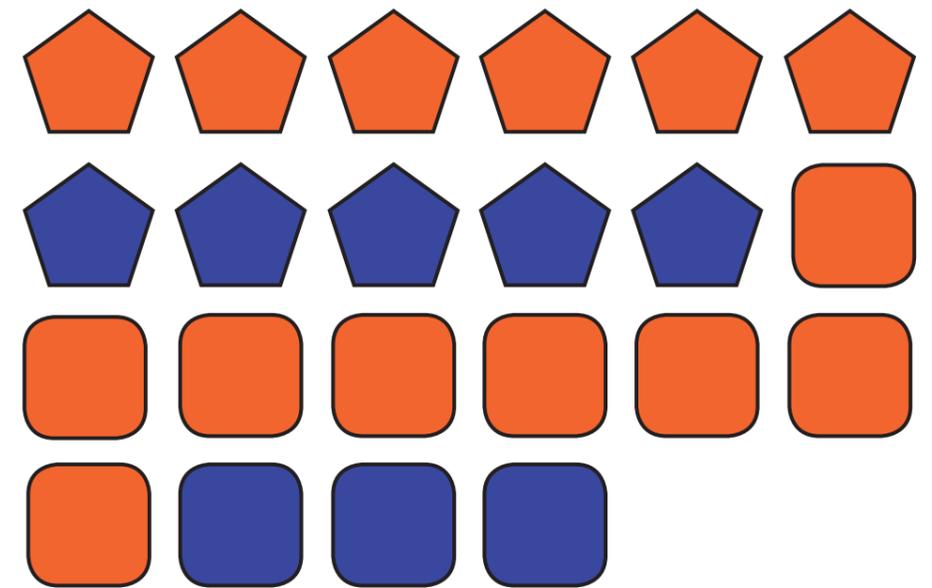
Attitude is a concept that relates to our personal and relational capacity to conduct research, as well as the organizational structure and processes that research, as an innovative endeavour, needs to be supported with.

Team

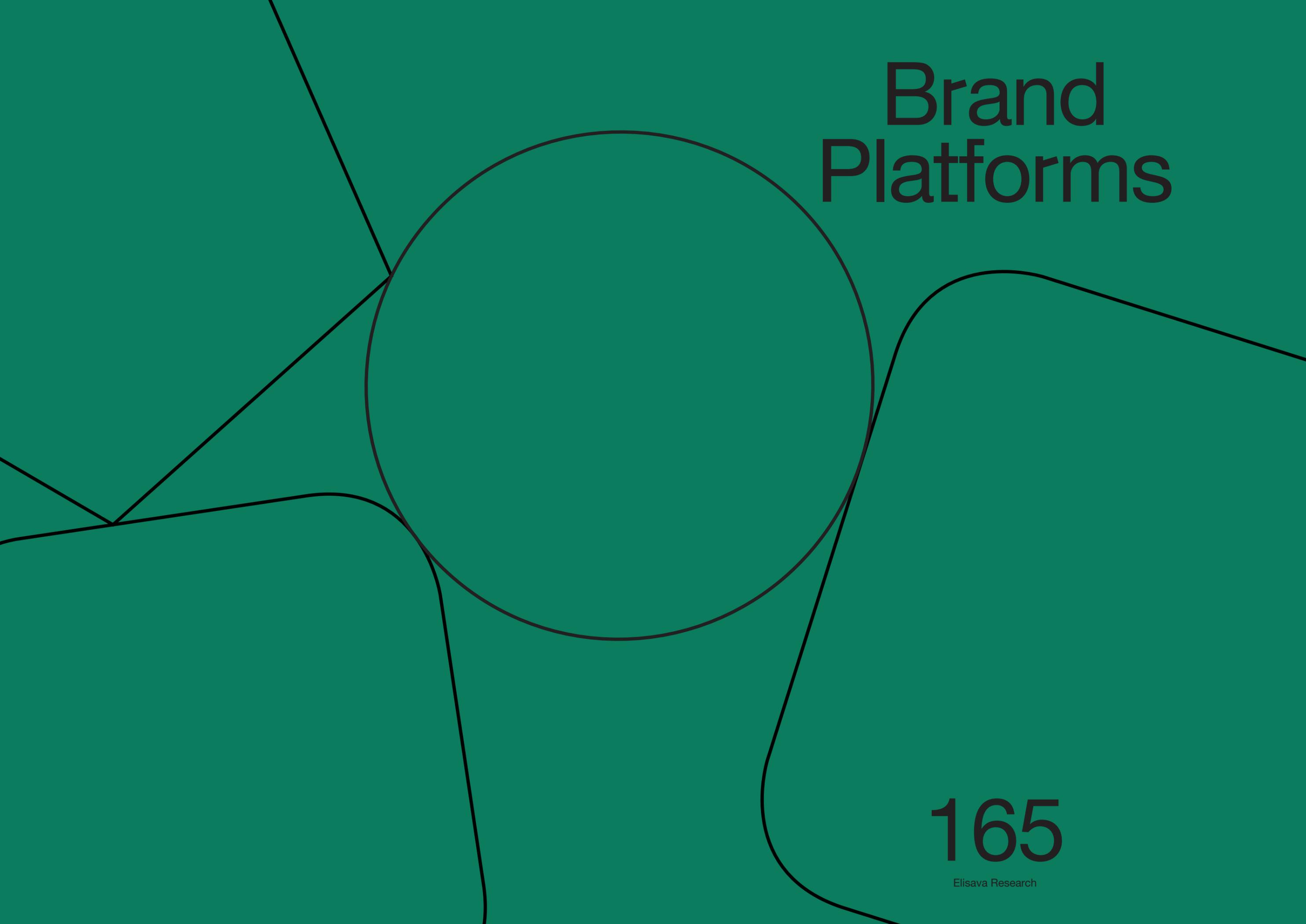


○ 35 PhD
 □ 24 PhD Candidates

Men
 Women



⬠ 11 Credentialed professors
 ◻ 11 In process



Brand Platforms

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Elisava Research

At Elisava Research, as a design and design engineering university, find important to generate a 'Brand attitude' in order to promote and position Elisava Research in the collective imaginariu, helping our research ecosystem to identify us as a research entity. Besides from Elisava Research, per se as a brand, we act also under two brand platforms: Material Narratives and Design for City Making.

Elisava Research

“The Elisava Research Brand Identity is based on lines and geometric shapes that travel through formats, expanding and exploring space in a flexible way. We have developed a custom Helvetica typography to give it a more technological and innovative flair. The contribution to this identity aims to express the emerging and innovative character of Elisava Research, facilitating the representation of areas and data thanks to its graphic resources, as well as providing versatility to the brand.”

By Lorena García, Art Direction

Outputs:

- + Brand guide
- + <https://research.elisava.net/>



Materials Narratives

“Materials Narratives is a platform aimed at researchers, teachers, companies and students, based on experimentation, design and engineering to innovate through materials. The platform uses an applied approach to investigate how the materials in our environment can be understood transversally, from a social, cultural, sustainable and technological perspective.

We see it as an exciting opportunity to provoke interaction between materials, publications and users, creating a space where, on the one hand, physical samples can be touched and interpreted, and, on the other hand, books of materials can be consulted. This is why, in 2020, the material library was located in the Enric Brucall Library.

50 new materials have been added to the collection, which already has more than 800 samples, classified into four tribes or collections of materials: circular, smart & advanced, cultural and basic.

- + Circular Materials presents materials that integrate circular aspects and allow processes in nature to be mimicked using raw materials such as waste or cultivated products.
- + Smart & Advanced Materials shows how materials have the ability to transform energy and adapt to the environment by changing their properties, and how their potential for lightness allows the amount of matter to be reduced for better efficiency and effectiveness.
- + Cultural Materials brings together materials that interpret history, traditions and society, typical of our immediate environment and our territory, where crafts play an important role.

Finally, Basic Materials are essential pieces, materials that are consistently used over time. They are versatile materials and a knowledge of them serves as a starting point to foster creativity in designers.”

By Marta González, PhD.



Outputs:

Curation of 2 temporary exhibitions:

- + “Material Tribes”
- + “Clint: by Elisava and Girbau”

Creation of Material box

- + “Welcome Pack” for ‘Master Design through new materials’

Interempresas magazine

- + 3 new material datasheets have been prepared and published in the magazine.

Instagram Material Designers: 13.600 Followers

Design for City Making - Desislab

“Design for City Making (DxCM) in Barcelona is a cross-disciplinary platform of design initiatives driven by Elisava in collaboration with different stakeholders. Each initiative, developed with mixed teams of students and faculty from undergraduate, postgraduate and research programmes, is an autonomous contribution to the city making process. Taken as a whole, they are a broad exploration of the collaborative city scenario, its meaning and feasibility in Barcelona and the possibilities for design and design schools to become agents of positive urban transformation.

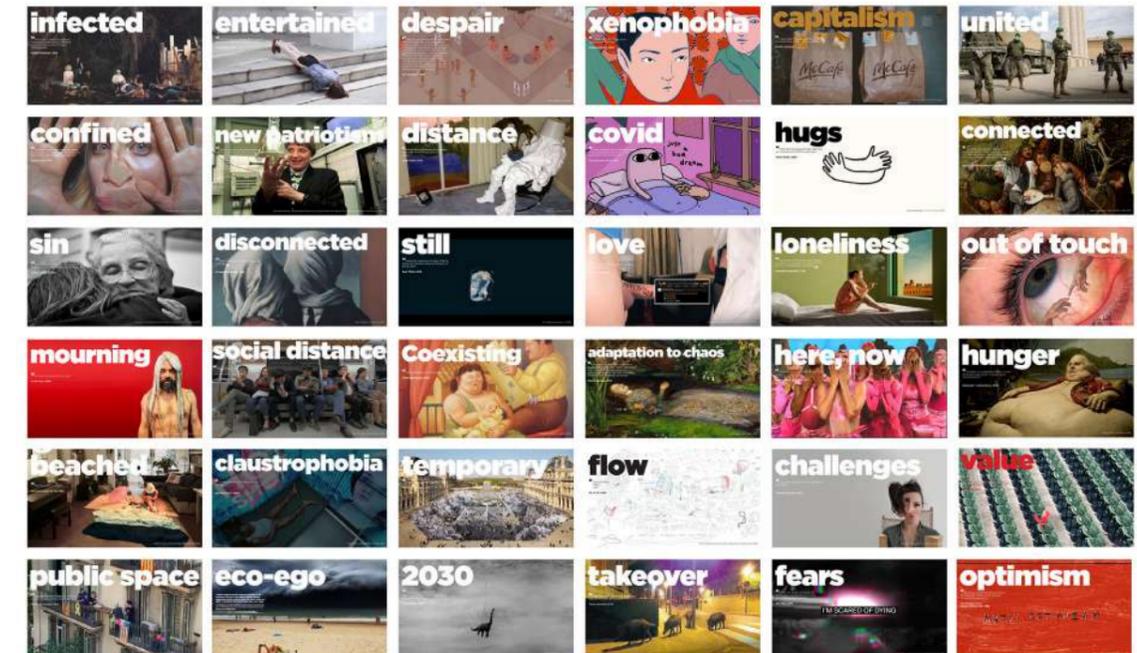
During the 2020 pandemic DxCM has actively promoted and collaborated in diverse initiatives to enhance the role of design schools in response to three areas:

- + Emergency: short-term problem solving.
- + Transition: mid-term transformations to adapt to new contexts.
- + New normal: long-term urban shifts the pandemic may lead to.”

By Roger Paez, PhD & Albert Fuster, PhD.

Outputs:

- + Presentation of results, DESIS network “COVID emergency” meeting, April 2020.
- + Talk and Studio Critique. BA Design, Politecnico di Milano, Italy. May 2020.
- + Final Degree Projects. BA Design Elisava, March-July 2020.
- + Elisava Research + MEATS projects exhibited in “Maison POC Collaborative City”, Lille World Design Capital 2020. June-November 2020.
- + “Far Away, So Close”. MEATS Elisava design/build installation. June-July 2020.
- + “Civic Placemaking 2”, Fundació La Caixa Project, Elisava Research. November 2019-November 2020.
- + Elisava Research + MEATS projects exhibited in “Point Commun”, Alliance France Design, Paris. November 2020.
- + “COVID-19 Niches”, MEATS Elisava International Workshop at IF Social Design for Sustainable Cities, Warsaw. October 2020.
- + Common project. BA Design Elisava + Parsons The New School, NY, USA. October-December 2020.



- + “Tornem” design/build installation, BA Design Elisava + Decidim + Canòdrom Ajuntament de Barcelona. October-December 2020.
- + “VORA”, EIT Urban Mobility research project FURNISH and design/build installation involving Elisava Research, MEATS and BA Design Elisava. June-December 2020 (Winner of Madrid Design Festival MINI Award 2021).
- + “Darth Vader in Slippers: Childhood and Play as Activators of Domestic Space in Lockdown”, article. UrbanBat Architecture-Urbanism-Social Innovation Festival, Bilbao. November 2020.
- + “Harnessing Conflict: Antagonism and Spatiotemporal Design Practices”, scientific article. Temes de Disseny 37 (publication due 2021).

Future Vision

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Elisava Research

During the first years of the definition and deployment of the research department of Elisava, we have learnt a great deal – personally and professionally. We have understood and transmitted the importance of research in design and design engineering both internally to our professors, as well as to companies, the European Commission, and to society.

We are entering the second phase of the Elisava Research department: a more structured functional unit, more focused topics on which we are strongly competitive, more scientific production impact, and a wider array of collaborating international partners. This second phase also comes along a challenging milestone in Elisava's history: becoming an officially recognized University in Design and Design Engineering, as a federated entity of Universitat de Vic.

This is not by chance, and implies a major mindset transformation and acknowledgement of design research importance, not only in the scientific research ecosystem, but also in Elisava's mission statement: 'We research, therefore we teach'.

Laura Clèries, PhD
Director of Elisava Research

