Tecniospring
INDUSTRY

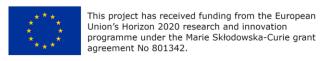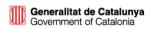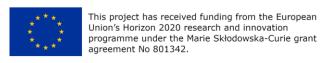# Tecniospring

Retrospective 2022

ACCIÓ
Catalonia Trade & Investment

Generalitat de Catalunya
Government of Catalonia

CataloniaConnects

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Why a retrospective?

We, the Tecniospring team, think that it is important to see and reflect on all that has been achieved in the Tecniospring programs. It is a way to analyze everything that has happened and to see how we can improve in the future.

The idea of this retrospective is to remind all Tecniospring researchers and host entities of the important news and highlights that have happened during the year. In this case, as this is the first time we have launched the report, we have collected the most important events and impacts that have happened throughout the three Tecniospring programs.

Although each of our fellows are developing and working on their own projects, we believe it is very important to be aware also of what the other fellows and entities are doing. You are the core of the Tecniospring community, so we want to provide you with the best possible experience during these two years.

We hope you will enjoy reading it as much as we enjoyed preparing it!

The Tecniospring team

Tecniospring: one of the programs with most impact on Catalan research

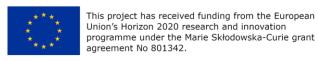Since it all started in 2013, ACCIÓ has provided financial support for hiring highly talented researchers to develop applied research projects in TECNIO centers, Technological centers and companies.

At the origins of Tecniospring

The first Tecniospring program was born with a vision: the future of Catalonia depends upon its capacity to promote technology transfer in Catalonia. Since then, Tecniospring has never stopped giving support to the transfer of scientific knowledge to the industry. Thanks to three funding programs, ACCIÓ has provided the financial support to 95 Catalan R&D organizations, which allowed them to hire 196 experienced researchers of 35 nationalities to develop their applied research projects. Tecniospring is about providing support on multiple fronts, from technical development and innovation to market impact and career development.

What impact on Catalan research?

After almost a decade of fostering innovation and matching researchers with organizations, the benefits of the program have been remarkable with many publications, prototypes, patents and even spin-off companies created. Not only have research professionals been supported in finding the best routes to the market, but it has boosted the technological sector in Catalonia and abroad, with outstanding results in product development.

They talked about us!

"What is demonstrated through Tecniospring Plus is that being closer to industry, making R&D financing viable for startups and companies of every shape and size, means Europe can accelerate innovation and build highly successful careers around applied research". It is with these meaningful final words that the prestigious magazine EU Research concludes its insightful article on the Program, which also provides interesting information about the results and the impact of the funded projects - we could not have said it any better!

Tecniospring so far in numbers

67 Prototypes

5 Spin-off companies

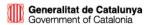**360** Open Access publications

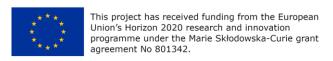**23** Patents

11 Success stories in the news

266 Participations in scientific congresses

Bringing together fellows from the 3 Tecniospring programs?

Challenge accepted! For the first time since its creation, all the researchers that are benefiting and have benefited from any of the Tecniospring programs were brought together at the same event: the Tecniospring Alumni Event.

A long-awaited event

The event everyone was waiting for finally happened: an encounter bringing together the current and former participants of all 3 Tecniospring programs - Tecniospring, TECNIOspring PLUS and Tecniospring INDUSTRY. The Tecniospring Alumni Event was held last November 18th, 2022, at the Espai Endesa in Barcelona with the presence of 60 Tecniospring fellows.

Networking & success stories

The conference was the occasion to hear about some of Tecniospring's biggest success stories directly from their main protagonists: the researchers. It was also an opportunity for the participants to do some networking and reflect on the need to do research and innovate, as well as the needs that should be met by ACCIÓ's future Talent program.

Because, as the Director General of Innovation, Digital Economy and Entrepreneurship Lluís Juncà said: "collaboration between the academic and business worlds is necessary because it connects research with the demands of society" - and we could not agree more.

The first of many

We had the most pleasant time during the Tecniospring Alumni Event; it was a real pleasure talking to you all. But most importantly, it allowed us to obtain your feedback on what is working and what could be improved to boost research and innovation in Catalonia. Your comments are precious to us as

they will allow useful improvements to be made.

"Collaboration between the academic and business worlds is necessary because it connects research with the demands of society"

Lluís Juncà, Director General of Innovation, Digital Economy and Entrepreneurship at the Government of Catalonia

Let's keep networking!

Thanks to the magic of Joaquín Matas, Tecniospring researchers now have their own WhatsApp channel to communicate and meet. For its part, the Tecniospring team will continue to organize more networking events that will be announced via SharePoint. Stay tuned!

Making a difference: Tecniospring projects that change the world

Here you can find some of the Tecniospring projects that have been a turning point:
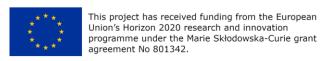
RNA-based health technologies

By Gerard Minuesa at Moirai Biodesign company

Two technologies that could allow for fast and affordable diagnosis of a myriad of diseases: an RNA design software and a Plug and Play RNA technology, a diagnostics technology based on molecular biosensors capable of detecting very low concentrations of a biomarker.

IASO

A parasol harnessing solar energy

By Gerard Cortina at company IASO

Thanks to best-in-class photovoltaic panels and a set of electronic devices that allows solar radiation to be stored in a battery, this smart parasol can harness enough solar energy to give up to 5 hours of light at night while efficiently protecting people from the sun.

A smart lollipop to detect diseases

By Pablo Giménez Gómez at Happy Innova

A protein, sugar-free candy is a remarkable alternative to more invasive methods such as blood tests, especially for young children, and can efficiently detect hypercholesterolemia or coeliac disease in a sample of saliva within 10 minutes of its ingestion by the patient.

A new system to detect toxic algae

By Gemma Giménez at TecnATox (TECNIO centre of the University Rovira i Virgili)

Based on the application of molecular biology, this system enables faster and more efficient detection of the presence of toxic microalgae, capable of producing toxins that can be ingested by mussels or fish and ultimately cause food poisoning in humans.

Algorithms for mental disorders

By Marjan Mansourian at CREB (TECNIO center of Polytechnic University of Catalonia)

This online expert-based intelligent hybrid system can diagnose high impact disorders and assess treatment outcome and the motor rehabilitation of patients, and calculate the probability for a subject to contract a specific disease given several factors
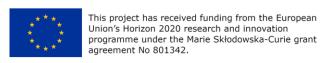
Bio packaging extending shelf life

By Farayde Fakhour at CCP (TECNIO center of the Polytechnic University of Catalonia)

This new packaging not only better preserves the freshness and the appearance of produce by slowing down its degradation, it is also manufactured using plant-based raw materials which makes it a sustainable alternative to plastics.

You can also see some success stories in video format on our website

Amit Kumar Bedaka

Lead Scientist at Chordata Motion

Chordata Motion is developing a motion capture system for game design, animation, digital arts, electronic music, gait analysis or physical therapy.

Dana Bernhardt

Scientific Researcher at Food Sourcing Specialists

What if we could compost food packaging at home? The eco-friendly packaging company Food Sourcing Specialists wants to make this a reality by developing sustainable packaging materials.

Montse Marquès

Researcher at TecnATox TECNIO Center

How do environmental toxins affect the health of pregnant women and their babies? Montse Marquès is developing the Safe+Pregnancy application to help pregnant women reduce their exposure to pollutants.
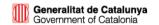
Marc González

UX/UI specialist at VRi

Can virtual reality help us fight diseases? This is the task of VRi, a startup that aims to display and analyze advanced 3D bioimages by combining virtual reality.
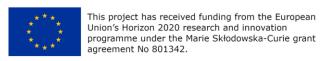
You can also listen to what their time in the Program has meant for some of the Tecniospring INDUSTRY researchers. To learn about their experience, we asked companies and researchers what impact Tecniospring has had on their lives.

Purpose-driven: promoting science and research to the public

Bringing science to the people, showing how research work and giving them an opportunity to ask their questions directly instead of looking for potentially unreliable second-hand information on the internet: who better than a researcher to promote science to the public?

Here are some of the experiences of Tecniospring researchers:

Barcelona Science festival

Organized by the Institute of Culture of Barcelona and the Municipality, the festival is an annual event during which researchers can reach out to the public and promote their research. Last year's participants are unanimous: the people were very participative; they asked a lot of questions and were genuinely interested in what the researchers had to say. They were particularly excited to really "do science" during the workshops/demonstrations, especially the children. It was a fun and the atmosphere was pleasant and cheerful.

#100tífiques

#100tífiques is an event that gathers female scientists from both the public and private sectors to celebrate and discuss the visibility of women in science. Last year's participants loved being able to interact with the future generations and maybe create new vocations. Working with children was gratifying they were eager to learn and really enthusiastic about the researchers and their work. The interactions were really dynamic, and they could sense that the kids were motivated. The questions were flying!
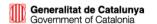
MSCA Falling Walls Lab

The Falling Walls Labs competition is an opportunity for MSCA fellows to present their innovative ideas and projects to the scientific community. Our researchers are clear: taking part in the MSCA Falling Walls Lab was an amazing experience, very exciting and challenging. I had to explain my project idea in less than 3 minutes in front of a high-caliber jury. We were trained the day before by experts to improve our communication skills and makes our pitch as much appealing as possible. It was inspiring to listen to many exceptional ideas from others MSCA researchers exposed in a story-telling format.

Science week monologues

Last year's 3rd prize was awarded to a Tecniospring fellow. Who knows, next year it might be you! - here is the 2022 edition.
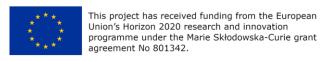
European Researcher's Night

No need to present this renowned Europe-wide public event each September, which displays the diversity of science and its impact on citizens' daily lives.

Last year's participant explains that it was so gratifying to visit science students aged 16-18 years old in a High School. They were very excited to know more about a topic that is not fully explained in the regular lessons, but directly impacts on their health. Some of them were particularly excited because they want to become Medicine students at the University where I am based, so they took this opportunity to ask questions about the project itself, but also about the degree.

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Improving researchers' career development

The main trainings of the Tecniospring program are: Commercializing Technology, Project Management and Open Access to publications and Research Data.

Commercializing technology: bring your research to the market

Last September marked the beginning of the 2nd edition of the course "Commercializing technology" by ASTP.

Panel of the course's 2021 edition

Applied research projects have one ultimate goal: taking the technology to the market. And who is in a better position to do so than the researchers who created it? This is what the commercializing Technology course is about: giving Tecniospring researchers the knowledge, skills and key concepts to successfully commercialize the results of their research.

This course has been designed by ASTP to give all researchers hands-on knowledge and practice. It consists of initial training to grasp the key concepts of technology transfer followed by a 6-month mentoring to develop a business plan to commercialize your technology, ending with a final presentation (pitch) to a panel of real technology-based entrepreneurs and early-stage investors.
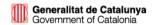
Project Management

The aim is to present the best practices in Project Management to help participants to create their own methodology for different projects. It also provides case studies to assimilate key content and select the most appropriate tools for each situation. It is a 3-day course with online mentoring. This training is carried out by La Salle Business School, which is the first business school in Spain and the third in Europe to obtain international accreditation from the GAC (Global Accreditation Centre) of the PMI (Project Management Institute) for the Master in Project Management.
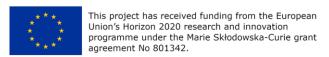
Open Access to publications and Research Data

The advent of digital technologies is making science and innovation more open, collaborative, and global, however recent reports from the EC show a considerable lack of awareness of Open Science among researchers. Open science encompasses, among others, open access to publications and to research data, as well as making research data FAIR (Findable, Accessible, Interoperable, Reusable). Namely, open access can help overcome the barriers that innovative companies, in particular SMEs, face in accessing the results of publicly funded research.
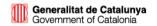
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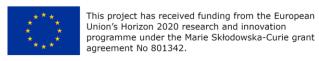Tecniospring Alumni Event, November 2022

Tecniospring website 2.0

The Tecniospring [website](#) needed a well-deserved dusting-off: success stories and Tecniospring projects in general are now more visible than ever thanks to its new organization. And it includes a novelty: brand-new videos! For now, there are 6 of them, but stay tuned as we will soon publish more information about you and your projects!

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Thank you!

Contact us!

934 767 206

info.accio@gencat.cat

Passeig de Gràcia, 129

08008 Barcelona

accio.gencat.cat

catalonia.com

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@accio_cat

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