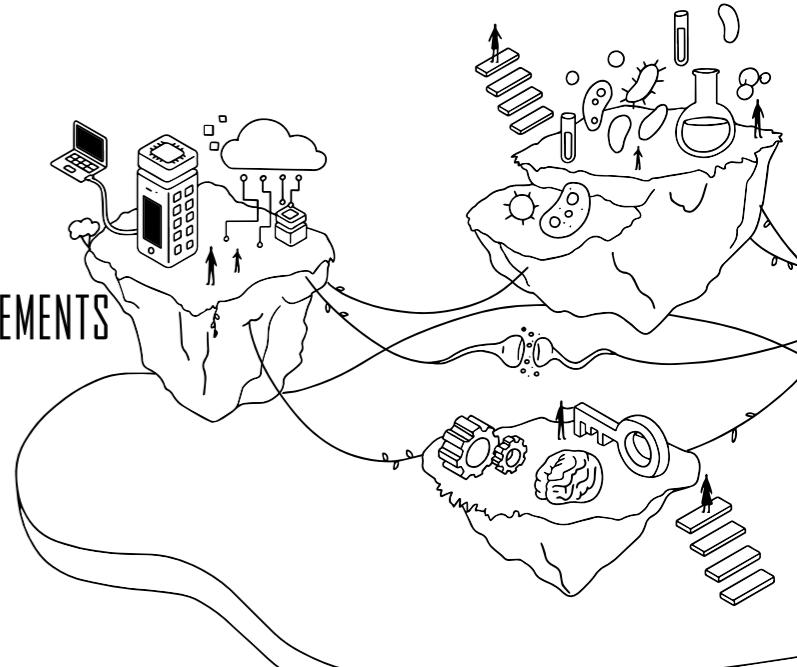


LET'S TACKLE THE CHALLENGES OF OUR TIMES

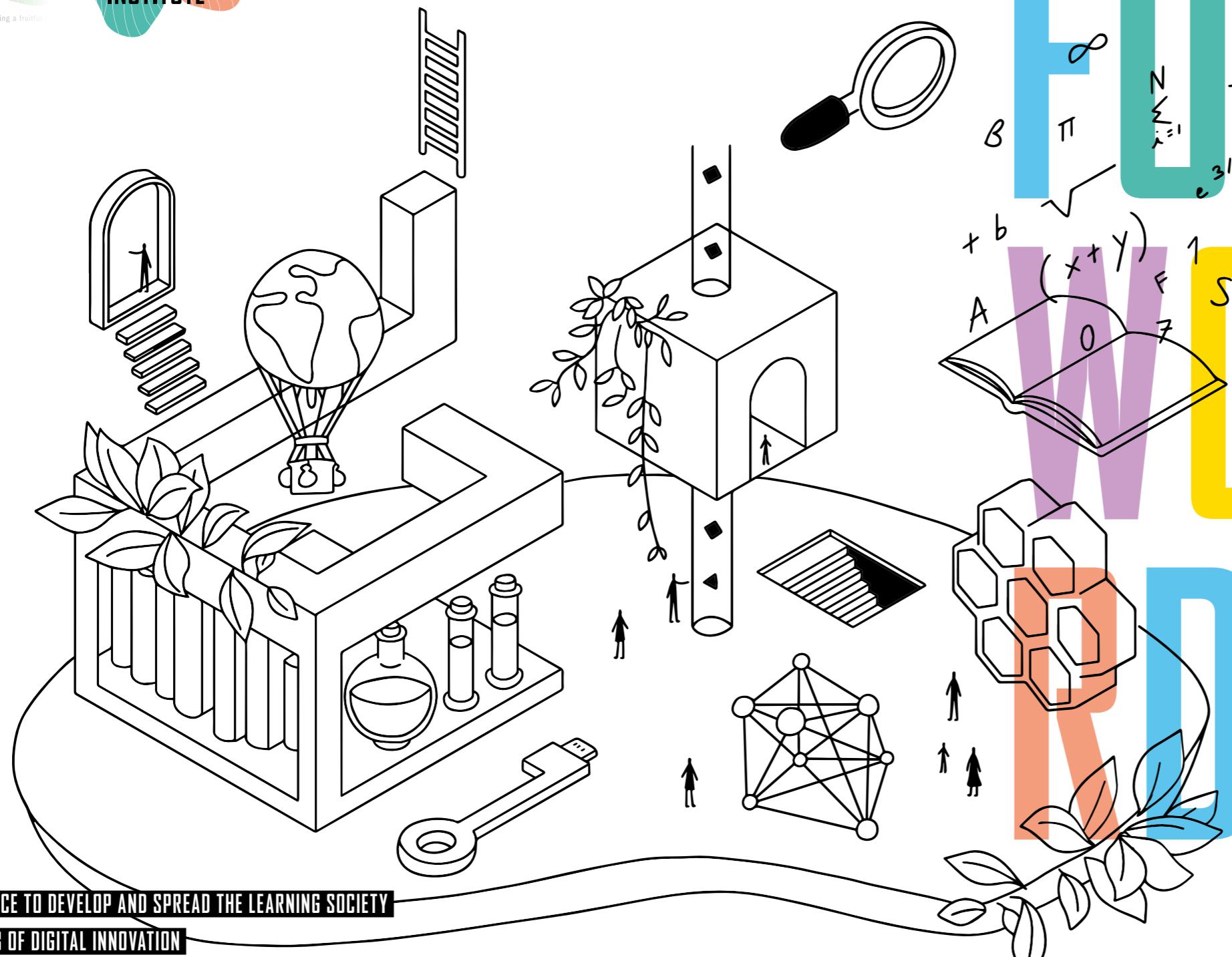
The Learning Planet Institute is a place for people to think freely, grow and explore new ideas, in an environment promoting diversity and equality. We welcome, value and empower individuals of all cultural identities. Accordingly, the language used in this report strives to be gender-inclusive.

ANNUAL REPORT
2020/21
CONTENTS:

- 05 - FOREWORD
- 06 - METAMORPHOSIS
- 10 - HIGHLIGHTS
- 14 - EDUCATION
- 24 - SPECIAL REPORT: INCLUSION
- 26 - RESEARCH
- 32 - SPECIAL REPORT: TRANSFORMING ORGANISATIONS
- 34 - INTERNATIONAL
- 36 - CAMPUS
- 38 - COMMUNITY
- 40 - FINANCIAL STATEMENTS
- 42 - PARTNERS



In 2022, CRI became the Learning Planet Institute



- A PLACE TO DEVELOP AND SPREAD THE LEARNING SOCIETY
- A HUB OF DIGITAL INNOVATION
- A CONSULTATION AND TRAINING CENTER
- A CENTRE FOR RESEARCH & DEVELOPMENT
- A PLACE FOR LEARNING

Find out more about
our metamorphosis



FOR E W D I

Our daily lives and our planet are under strain, as social, environmental and economic crises take their toll. For 15 years, CRI has made it clear that a novel approach – learning through research – is both necessary and within our reach, so we can tackle the challenges of our times. Together with students, teachers, researchers, our staff and our partners, we have tested and prototyped new ways of learning, teaching and doing research.

Because our society's challenges are becoming more and more complex, they demand an interdisciplinary response, and learning how to learn and collaborate is more critical than ever to our democracies, our economies, and the sciences. In 2021, we responded to an increasing number of requests from organisations, schools and local entities looking to enhance how they learn and share knowledge, and we helped them with their transformation.

We believe that one way for everyone to learn from – and contribute to – our collective intelligence is to create a place of continuous research and experimentation for a learning society. A learning society can better adapt to the fast-paced changes of our constantly evolving world. **That is why CRI is expanding its reach and growing its contribution to the public good in a new form, as the Learning Planet Institute.**

We will amplify our social impact by building on the excellence of our research, development and training activities and applying our values of interdisciplinary and multicultural cooperation, at our campus and across the international #LearningPlanet alliance.

Alongside our partners, which include the Fondation Bettencourt Schueller, the Université Paris Cité, CY Cergy Paris Université, the City of Paris, Inserm and UNESCO, we will continue to promote a culture of research, entrepreneurship and social impact. Together, we will invent new ways and methods to advance our societies.

Our new name marks a new chapter in our history. We are readier than ever to help create a world where young people can thrive and reach their full potential.

Executive Committee

Bénédicte Gallon, Jean Grellet, Ariel Lindner, Gaëll Mainguy, François Taddei



ABOUT THE LEARNING PLANET INSTITUTE

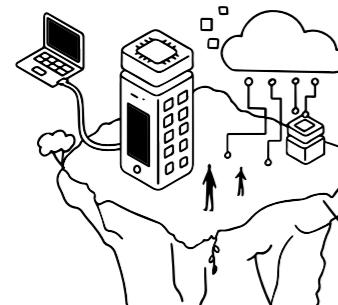
The Learning Planet Institute is the new iteration of the Center for Research and Interdisciplinarity, or CRI, started by researchers François Taddei and Ariel Lindner in 2006. As suggested by its name, the Learning Planet Institute is a driver of the learning-society revolution that believes learning, research, collective intelligence, and creativity can help both individuals and organizations adapt to the increasingly complex challenges of our rapidly changing world.

We are a research-and-development center as well as a graduate and post-graduate school developing programs for kindergarteners and doctoral students alike and every age in between—and even for continuing-education learners. We likewise offer services to government agencies, companies, and other types of organizations as they embark on their learning-society transformation. Our unique position as a digital-innovation hub tapped into a global community of change-makers lets us explore and share knowledge in new ways at an unprecedented scale, all for the purpose of facing head on the great social and environmental challenges of our time.

Thanks to long-standing partners the Bettencourt Schueller Foundation, University Paris Cité, CY Cergy Paris University, the French General Secretariat for Investment, the City of Paris, Inserm (the French Institute of Health and Medical Research), and UNESCO, the Learning Planet Institute can continue in the CRI's legacy as an agent of change where research and entrepreneurship come together to have a real impact in making the world a better place for life.

GOVERNANCE

The Learning Planet Institute, formerly CRI, is a French non-profit (association loi 1901) governed by a Board of Directors. With Université Paris Cité, it co-founded the Frontière du Vivant et de l'Apprendre (Frontiers of the Life and Learning Sciences) department, which offers degree programs. The Learning Planet Institute also houses a joint research unit (UMR 1284) run by the Université Paris Cité and Inserm, France's national institute of health and medical research.



“

CRI OR LEARNING PLANET INSTITUTE: ALWAYS INVENTING NEW WAYS TO EXPLORE

“ Interview with François Taddei, Chief Exploration Officer at the Learning Planet Institute.



© Quentin Chevrier

WHAT ARE THE FOUNDATIONAL VALUES OF THE LEARNING PLANET INSTITUTE?

The Institute has gone through several metamorphoses since it first emerged as the CRI 15 years ago, but our DNA is still the same. Our trust in our students, our transdisciplinary approach, the cooperation we foster and the freedom we give young researchers are all constants on which we build our strength. To this list I can add caring support, a generosity of spirit and the right to make mistakes. Mistakes are inherently human and to be expected when trying something new. And that is exactly what we encourage our students to do: invent new ways of exploring.

LOOKING BACK, WHAT SURPRISES YOU THE MOST?

When we started out, we wanted to develop new learning methods for a few students who wanted an alternative to conventional models. However, we quickly saw that many other groups could benefit from alternative learnings methods – children, teachers, patients and drop-outs, for example. Today we have universities, government departments and businesses consulting us. I hadn't imagined this much success, but it shows that what we offer resonates with universal human goals. We were all born scientists and we have a need to explore – even more so now, given the issues that humanity is facing.

WHAT RESOURCES HAVE ENABLED THE LEARNING PLANET INSTITUTE TO GROW?

The Institute has received multiple contributions in varying forms, and we take care to put each to the best possible use. The list of our benefactors is a long one, and it includes the builders who carried out the construction work, the students who enrich campus life, the City of Paris, the Fondation Bettencourt Schueller, our teachers and our administrative staff. Everyone brings something to the table, in a unique climate that often motivates people to give much more than is expected. They do so because they find meaning in their work here, but also because what they can accomplish at the Learning Planet Institute is larger than their own lives.

HOW IS THIS PLACE UNIQUE?

First, we can do things here that are not possible elsewhere. Next, we have developed methods here that have turned many ideas into realities, so this has heightened our power of attraction. We also explore different ways people can learn to overcome challenges, making the Institute a trailblazer for the learning society. Lastly, we provide a middleground, a neutral space where institutions (the upperground) and grassroots activists (the underground) interact, converse and maybe imagine solutions together.

WHY DOES THE LEARNING PLANET INSTITUTE HAVE AN INHERENT ABILITY TO TRANSFORM?

Transformation is embedded in our organisation's genes as well as our purpose. Those who join us express a clear desire to create meaningful change. And our ambition at the Institute is to change ways of learning and of conducting research. Although for many years we mainly supported individuals, we now want to put our methods and tools to work for companies and other organisations embarking on a transformation.

WHAT ARE YOUR GOALS FOR THE COMING MONTHS?

Our goals can be summarised in one sentence: to amplify the impact of our activities and invent a new business model, without expanding the space we occupy. In other words, we will share our expertise as widely as possible, meeting the growing demand for our services. Going forward, our activities will cover five focus areas: research & development, learning, consulting & training, digital innovation and international expansion. We will leverage synergies to scale up all these areas simultaneously.

BRIEFLY, WHAT ARE YOUR TAKEAWAYS FROM THE PAST YEAR?

Many things we used to take for granted very nearly disappeared from our lives: meeting people, sharing moments with family and friends, and simply enjoying life. The pandemic may have forced us to step back, but it is also encouraging us to celebrate what we have and think hard about what we want to strive for. I am absolutely convinced that this experience marks the start of a new era. |

THE LEARNING SOCIETY: FROM CLASSROOM TO CORPORATE, A COMMON CHALLENGE

Véronique Bourez and Nicolas Bordas, members of the Transformation Committee created in 2021, share their perspectives on the Learning Planet Institute of the future and how to promote a learning society.

WHAT IS THE TRANSFORMATION COMMITTEE'S ROLE?

Nicolas Bordas. The committee was created to accelerate the Learning Planet Institute's transformation in France and internationally. Its members are from diverse backgrounds, but all are experts in one facet of the learning society, whether education, continuous professional development or learning in companies and other organisations.

Véronique Bourez. Our role is to help the Executive Committee adapt to the Institute's new ambition to co-create a learning society that can tackle the challenges of our times. We are an advisory committee, so we advise on matters dealing with strategy, prioritising projects and allocating resources.

WHAT ARE THE GOALS OF THE FUTURE LEARNING PLANET INSTITUTE?

V.B. Our first line of action is to amplify our impact, making the Institute the world's foremost co-creator of a learning society. Another key goal is to enrich our culture of continuous innovation, which is a defining trait of the Institute, with a business "layer" to ensure a lasting business model without altering our DNA.

N.B. One main challenge is to scale up by leveraging all the know-how we have developed over 15 years and focusing it on one thing: creating learning organisations. To make this leap, we need to diversify our income streams beyond grants and donations, in particular by providing consulting services.

WHAT IS YOUR TIMELINE?

V.B. The transformation will be achieved by the end of 2024. It is beginning now, as we communicate our new identity, reflected in a new name: the CRI has become the Learning Planet Institute. This done, we still have

THE INSTITUTE IS ALREADY AN EXAMPLE OF AN ORGANISATION COMMITTED TO A MORE INCLUSIVE AND COLLABORATIVE SOCIETY.

two major tasks ahead: adapting our R&D activities to support our new ambition and building a comprehensive range of consulting services. Our roadmap is an exciting one, and our enthusiasm is commensurate with our Institute's potential future role in our society's transformations.

WAS THE CRI RIGHT TO CHANGE ITS NAME?

N.B. I am sure of it, for three main reasons. One, the acronym CRI is not meaningful internationally. Two, the Learning Planet Institute name is a clear description of our purpose and requires no further explanation. Three, the new name – which will be displayed everywhere, on our walls and on our website – will resonate with internal and external contributors alike, engaging all towards the shared ambition of creating a learning society.

HOW DO COMMITTEE MEMBERS ACTUALLY CONTRIBUTE?

V.B. All seven committee members have worked in large public- or private-sector organisations, and so we have all undergone or even led the implementation of transformation plans. What do we have in common? We are all passionate about the Institute's mission and about transforming education and learning, which to us is a top priority amid the challenges facing contemporary society.

N.B. Each committee member provides additional support in one area of the transformation, depending on where their expertise is most useful. That's why I focus on international communications, which I am familiar with through my work, in addition to chairing the committee.

HOW CAN THE LEARNING PLANET INSTITUTE HELP COMPANIES TACKLE THE CHALLENGES OF OUR TIMES?

V.B. The Institute is already an example of an organisation committed to a more inclusive and collaborative society. At a time when decision-making has become increasingly complex, we propose to help companies redesign how they learn so they are ready to effectively collaborate and co-create. We have developed tools to connect people working on the same issues, wherever they are: this know-how will become critical in the future, as we are increasingly required to rapidly co-develop and implement innovative solutions.

N.B. Twenty-first century companies understand

how vital it is to boost their ability to learn and share knowledge, internally and externally. They are also aware that, having learned to be digital, they must now learn to be social. The rising generations need to see how their companies are contributing to society. And learning is the linchpin of their loyalty to an organisation. Not just because they enjoy learning, but because they want to quickly find effective solutions with positive social impact. The Learning Planet Institute is responding to these needs by sharing tried-and-tested know-how that, in the future, will make all the difference to those who have chosen to use it.

Véronique Bourez, strategy and development consultant.
Nicolas Bordas, Vice President, International, TBWA\Worldwide.
Other members of the Transformation Committee:
Anne de Bayser, Hélène Boulet-Supau, Olivier Brault,
Théophile Redaud and Jérôme Tixier.



HIGHLIGHTS

RECAP OF AN EVENTFUL YEAR

•SEPTEMBER 2020
RESEARCH

FALLING WALLS LAB COMPETITION: A SHOWCASE FOR BREAKTHROUGH IDEAS

The Learning Planet Institute hosted its first Falling Walls Lab, an international pitch competition for disruptive projects-slash-networking forum, in September 2020. The event attracted a large, diverse and interdisciplinary mix of students, researchers and early-career professionals, who were given a stage to present their visionary ideas. The 11 presentations at this occasion addressed challenges ranging from education to socio-emotional skills to marine conservation. The jury awarded the first prize to Guy Aidelberg (a PhD student at the Institute) and his DNA Detective project, which creates frugal methods of detecting DNA/RNA. ■



•OCTOBER 2020
MASTER

CHALLENGE HUB FOR MASTER STUDENT'S PROJECTS

encourages students pursuing Master's degrees in three fields – Life, Learning and Digital Sciences – to pursue entrepreneurial projects. It supported four students in the first semester and ten in the second, with promising results. The incubated projects included a start-up called EdTech, the design of a new workshop for coping with collective trauma such as that caused by Covid-19, the analysis of skin lesion images, and research on a low-cost dialysis machine prototype. ■



•DECEMBER 2020
SAVANTURIERS – ÉCOLE DE LA RECHERCHE

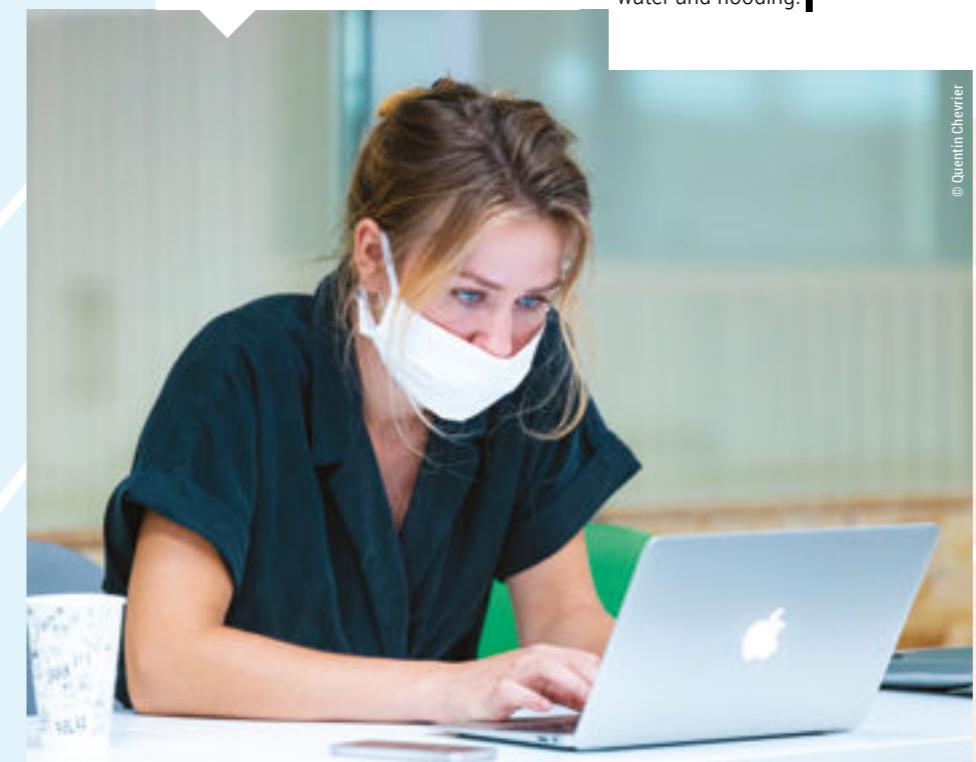
A SAVANTURIERS CLASS WINS THE FONDATION SAINT-PIERRE AWARD

Congratulations are in order for the pupils of Ms. Taphanel's class in Montbazin (southern France). Their Savanturiers project dubbed Shoeshoe – a shoe equipped to assist sight-impaired children – scooped the Fondation Saint-Pierre Award. The primary school teacher and a pupil's mother, a robotics researcher, first hatched the idea and then supervised the 7- and 8-year-old pupils, who designed a small robot that can detect obstacles, such as a door. The end-to-end experience of brainstorming, producing designs, running trials with a 3D printer, coding, and writing articles for the Savanturiers blog was formative for the young contestants. ■

•MARCH 2021
MASTER

ELLESTECH SHINES A LIGHT ON FEMALE STUDENTS

The "Women in Technology" conference held by the EllesTech initiative in March 2021 brought much-needed attention to the work accomplished by female students in technology-related fields. Ten speakers from the Institute took part in the inaugural event, which was open to the public. In light of the positive reception, it will be back in 2022. ■



•MARCH 2021
RESEARCH

CROWD4SDG: PRESENTING THE GEAR CYCLE'S CITIZEN SCIENCE PROJECTS

The five citizen science projects selected during the first GEAR cycle (Gather, Evaluate, Accelerate, Refine) by the Crowd4SDG consortium, of which the Université Paris Cité and the Learning Planet Institute are members, were presented at the Geneva Trialogue, hosted by the University of Geneva and UNITAR (United Nations Institute for Training and Research). In this first phase of this cycle, participants aged 16 to 26 submitted projects tackling water-related issues such as droughts, access to clean water and flooding. ■



•MAY 2021
RESEARCH

A WINNING ESSAY ON LOCAL INNOVATION IN BIOMEDICAL RESEARCH

Researchers from the Learning Planet Institute, collaborating with teams from the Hackuarium (Lausanne) and the University of Toronto, wrote the winning entry in the Reimagine Biomedical Research for a Healthier Future competition by the Health Research Alliance (HRA). Their essay entitled "Empowering grassroots innovation to accelerate biomedical research" proposes a range of actionable reforms to widen access to laboratory equipment and consumables, funding routes for bottom-up research initiatives and ethical oversight mechanisms. ■



* « Favoriser l'innovation au niveau local pour accélérer la recherche biomédicale ». ■

HIGHLIGHTS

•JUNE 2021
RÉALISE TES RÊVES

URBAN TALENTS TAKE A NATURE BREAK

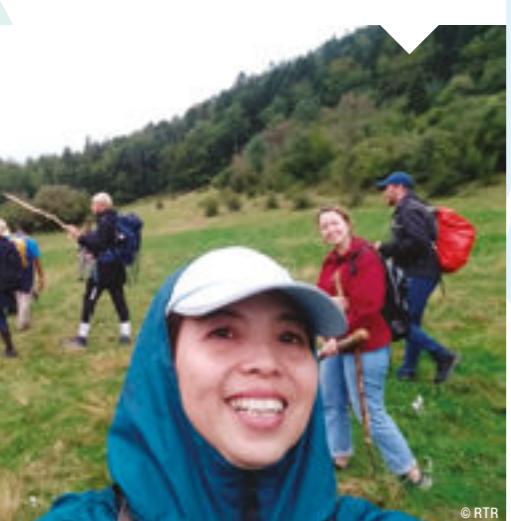
Nature immersion is one of the many activities that the Réalise Tes Rêves (Realise Your Dreams) consortium offers to help people find their way to employment or entrepreneurship. The consortium's programmes have already reached 1,500 people from three large metropolitan areas (Lille, Paris and Marseille). Participants are taken on short getaways from their usual urban environment to nature destinations – such as the Vercors, west of the French Alps, in June 2021 – where they explore activities like hiking. Teamwork is also an important part of the experience throughout the stay, whether to plan and prepare meals or an evening camping in the wild. ■



•JUNE 2021
INNOVATION

SPRINT DAY FOR THE LABO DES DÉFIS: PRESENTING THE YEAR'S PROJECTS

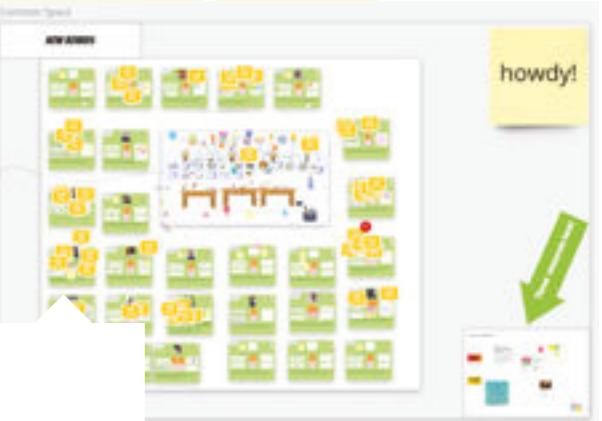
Participants in the Labo des Défis, a 60-hour programme run by the Institut des Défis (Challenge Institute), met for a one-day "sprint" and a final presentation of the projects they have developed to drive our society's transition and meet local and global challenges in the areas of health, education and sustainable urban development. The learning experience is crafted to push participants to better understand themselves, others and the planet as they develop a project with a positive impact. ■



•JULY 2021
#LEARNINGPLANET

INSPIRING IDEAS AT THE 2021 #LEARNINGPLANET MEETING

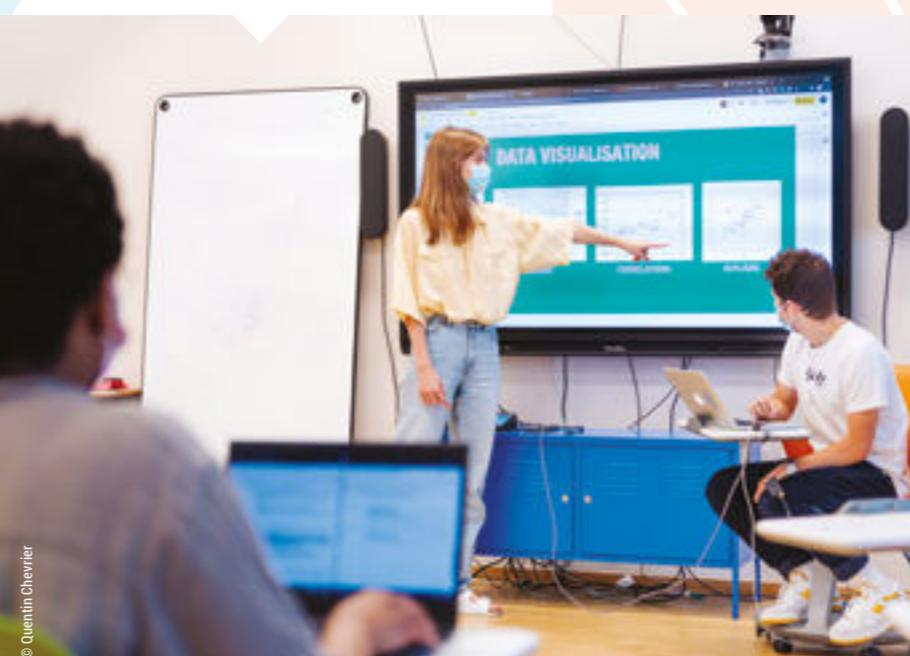
The 2021 #LearningPlanet meeting in July 2021 assembled a trove of inspiring contributions. Over 500 #LearningPlanet alliance members met for two days of collaborative work on sustainable development learning, promoting youth empowerment, transitions through education and co-designing fundamental #LearningPlanet programmes. ■



•JULY 2021
MASTER

AN INTRO TO DATA SCIENCE AT THE DATA FOR GOOD SUMMER SCHOOL

The Institute's Data for Good Summer School is a three-week programme for people with no prior programming knowledge to learn about data science with Python and create a project prototype. Under the guidance of Master's students, they learn how to play with data and build a project from scratch. The summer school aims to develop the technical skills needed to explore and analyse data associated with the UN's Sustainable Development Goals and tackle real-world problems. ■



•2020-2021
RESEARCH

PRESTIGIOUS GRANTS FOR RESEARCHERS

The excellent work of the researchers in our collaboratory has earned recognition from French and international organisations, particularly in the form of grants from Horizons Marie Skłodowska-Curie, ANR JCJC, ANR and Porticus, providing tangible support enabling them to step up research in the biomechanics of birdsong, collaborative science networks, dyspraxia, inclusive education and reducing developmental inequality in early childhood. ■



Savanturiers – École de la recherche

HOW SCIENTIFIC LEARNING FORGES TOMORROW'S CITIZENS

The cornerstone of the Savanturiers programme – learning through research – is transformative for students and schooling in its broadest meaning.

In today's society, where young people are constantly plugged into social networks and struggling more and more to separate truth from fiction, the lessons learned through the Savanturiers programme are more vital than ever. *"It is crucial to reinforce students' scientific mindset and help them develop critical thinking abilities. How can they form an opinion without any knowledge of scientific methods?"* said Émilie Dibb, an elementary school teacher and long-time Savanturiers ambassador.

Preparing future citizens for tomorrow's challenges

The Savanturiers programme empowers students and unlocks collective intelligence to forge the citizens of the future. Its projects especially enable young people from disadvantaged areas and access to fewer cultural resources to acquire foundational skills that will help them thrive later on, such as how to conduct documentary research or work effectively in a group. *"The approach also prompts teachers to reflect upon their role, act as mediators and let the students direct their own projects. This is different from conventional top-down teaching,"* added Émilie Dibb.

Multiple angles of approach

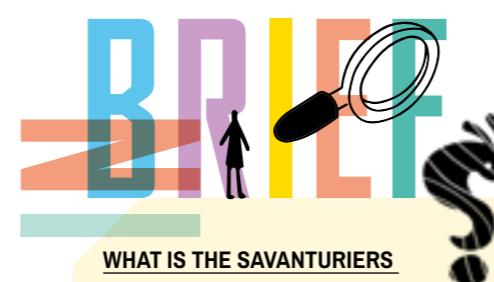
One of the programme's flagship projects, Chimères (Chimeras), is a multidisciplinary project blending science, literature and art, first initiated by Virginie Gannac, a professor at École Boulle. *"The multi-layered theme inspired students to draw from biology or mythology and approach their subject from different angles, ranging from sustainable development to artistic production. Over thirty preschool and elementary school classes saw this ambitious project through to the end,"* said Émilie Dibb.

“OVER THIRTY PRESCHOOL AND ELEMENTARY SCHOOL CLASSES SAW THIS AMBITIOUS PROJECT THROUGH TO THE END”

*Émilie Dibb,
elementary school teacher
and long-time Savanturiers
ambassador*



▲ A pupil's drawing of a chimera

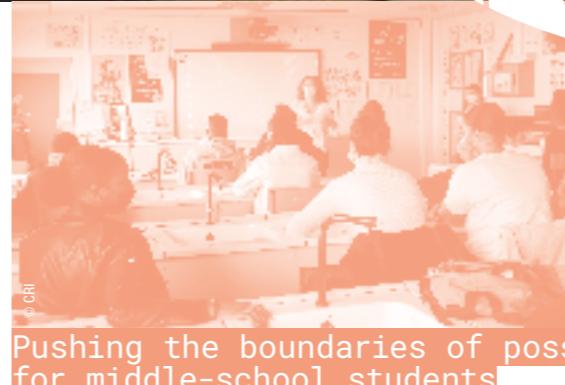


WHAT IS THE SAVANTURIERS PROGRAMME?

► "Savanturiers – École de la Recherche" is an educational programme that advocates learning through research. It operates nationally and internationally, offering a range of educational projects, trainings, resources and scientific methods. Created by Ange Ansour and François Taddei, it engages and unites the educational and scientific communities in support of schools.

WHAT ARE THE PROGRAMME'S GOALS?

- Support the development of the education professions.
- Deepen teachers' expertise as educator-researchers.
- Promote collaborations between researchers and teachers.
- Build rigorous and ambitious learning experiences.
- Introduce students to various fields of scientific investigation.
- Develop the four components of a student's scientific activity: creativity, method, critical thinking and collaboration.



◀ Middle-school students participating in The Schools Challenge

The Sustainable Development Hackathon is an emblematic Savanturiers project. It spurs middle-school students to address problems that directly affect them, relating to urbanism, consumption and citizen engagement. It's up to them to think up sustainable solutions and suggest entrepreneurial strategies to carry out their projects. Hackathon participants are provided with a toolkit introducing them to various engineering, public policy and project management approaches. The project also gives them insight into a variety of occupational area, which can help them later in their career choices. Lastly, students gain some workplace experience enabling them to better anticipate the transition from school to work.

KEY FIGURES*

• 4,691 children participated in Savanturiers projects
3,503 as school projects
1,188 as extracurricular projects

• 124 teachers participated with their classes

• 4,397 education professionals underwent training (webinars, MOOC, formal training) in learning through research, including 1,567 teachers

• 81 mentors contributed to the programme



▲ Benjamin Pothier & Orpheus Mission crew members

• 59 projects were carried out in disadvantaged areas & 24 in rural areas

* Data for the 2020-2021 academic year.

Frontiers of Life Sciences Bachelor's degree

CITIES STUDENTS IMAGINE AND DESIGN REALITY-TESTED SOLUTIONS

The CITIES course in the Frontiers of Life Sciences Bachelor's degree program inspired students to imagine the sustainable city of the future and test their solutions against on-the-ground realities.

En quoi consiste le cours CITIES?

Cléo Perrin. CITIES asks students to observe the city, identify problems and design solutions, and even to build and implement prototypes.

Cédric Courson. It "connects minds" to imagine the sustainable city of the future through projects that very tangibly address social and environmental issues. In 2021, 28 people took the two-week course, spread over two months, and presented seven projects that support the UN's Sustainable Development Goals.

What kinds of project, for example?

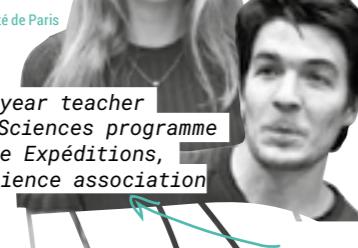
C.P. My group developed a protocol to recycle spent grain left over from the brewing process, by using a fungus to transform cellulose into ethanol. We want to help urban brewers resolve storage and disposal issues for this residue that is not only space-consuming, but smelly!

C.C. One group found a way to make new products from recycled face masks. Another created a local network of restaurants where diners can pick up meals in their own food containers. Yet another group collected and filtered rainwater using plants.

*Cléo Perrin,
third-year Frontiers of Life
Sciences Bachelor's degree
student*

© CRI - Université de Paris

*Cédric Courson,
FIRE PhD student, second-year teacher
in the Frontiers of Life Sciences programme
and president of Astrolabe Expéditions,
a participatory marine science association*



© CRI - Université de Paris

WHAT MAKES THIS DEGREE UNIQUE?
► This bachelor's degree programme, developed by the Learning Planet Institute and delivered by the Université Paris Cité, is particularly suited for students who are passionate about the life sciences and the important role they play in our societies.

ZRIFF



Frontiers of Life Sciences students presenting their CITIES project called "A step towards biodiversity"

LEARNING PLANET INSTITUTE - ANNUAL REPORT 2020/21

A Bachelor's degree
in phase with
contemporary issues

"The Frontiers of Life Sciences bachelor's degree is a great opportunity. Its educational objectives and content resonate with the needs of our society today," said Magali Mas, a university lecturer and a researcher at Inserm. She notes that this type of interdisciplinary degree program, where students are agents of their learning, develops their curiosity and independence. She also appreciates the freedom that professors are given to innovate and try out alternative educational approaches. In addition, the resources allocated to the programme help to ensure high-quality theoretical and practical learning, and the modest class size – about thirty students – allows for nearly personalised attention.

Prototype of a frugal centrifuge for use
in low-income biology labs



KEY FIGURES*

• 48 researchers, teacher-researchers and tutors

• 90 students
75% women
and 25% men

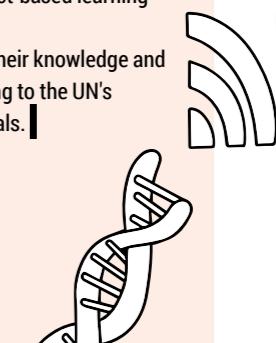
What do students do
after their degree?

• 80% Master's degree
• 5.1% Engineering degree
• 4% Other bachelor's degree
• 2.5% Gap year
• 1.7% Medical school
• 1.7% Employment
• 5% Other

* Data for the 2020-2021 academic year.

HOW IS IT EMBEDDED IN OUR TIMES?

- This Bachelor's degree programme promotes active learning, such as project-based learning and field experiences.
- It enables students to apply their knowledge and skills to real-life issues relating to the UN's Sustainable Development Goals.



EURIP

A GRADUATE SCHOOL IN STEP WITH THE TIMES

In 2020-2021, EURIP reinforced mentoring activities and student-organised events to stay close to students and maintain a vibrant learning ecosystem.

A main focus of the EURIP Graduate School for Interdisciplinary Research is preparing educated citizens to achieve the sustainable development goals defined by the United Nations. A distinguishing characteristic of the school is its emphasis on transferable knowledge and skills. "When you study at EURIP, you access the Learning Planet Institute's infrastructure, but you are also immersed in a unique mindset that is particularly open to the world. And that's deeply inspiring," said Louise Lassalle, EURIP project head. The feeling of global openness is reinforced by the 40 or so nationalities represented at the school.

An ecosystem thriving on mentorship

EURIP students also receive strong support, particularly through mentorship. In 2020-2021, each of the school's programmes chose to formally set up a long-term mentoring system to last beyond the school year. EURIP students can be mentored by other Master's degree or PhD students, teachers or researchers...there are no restrictions. "The Learning Planet Institute itself is a place of human scale, conducive to conversation and informal contact. It really is a learning-through-research ecosystem," said Louise Lassalle.

A curriculum grounded in the real world

What also makes EURIP unique is its focus on learners, their individual paths and expectations – looking beyond their academic credentials. From the start, during the selection phase, the emphasis is on the prospective student's project, motivation and aspirations. Where do they want to go? How do they plan to get there? "Each student regularly meets with the faculty team throughout the programme. They also complete three internships in the first and second years of the Master's degree, allowing them to adjust their course of study as they go along. Likewise, these interactions enable EURIP to update its course catalogue every year. Students also



Students at the CIRP (Community, Interdisciplinary Reflections and Projects) event held each year at the Learning Planet Institute



Caring for the physical and mental health of doctoral students

Health and well-being are two decisive factors of a PhD student's success.

Despite being essential to the lives of young researchers, these aspects are rarely addressed in the academic world. To remedy this situation, the FIRE Doctoral School ran a workshop on health and well-being in 2020-2021. About a dozen PhD students at different stages of their thesis work attended the workshop, with talks by the non-profit Doctopus and the international NGO DragonFly Mental Health. One of the topics covered, the imposter syndrome, kicked off a constructive discussion. When accomplished scientists share doubts and even discuss mental health issues they have fought, this helps to destigmatise mental illness and encourages others to open up. The unanimously positive participant feedback from this first such workshop prompted faculty members to recommend it even to students other than first-year PhD students.

A South of France getaway for doctoral students

For their annual retreat in June 2021, PhD students headed to Martigues and the sun.

About 40 doctoral students, all years combined, along with alumni, guest speakers and the members of the coordination team took this time out for quality interactions and sharing. On the agenda, scientific conferences alternated with more festive activities. Interdisciplinarity and diversity were underlying themes for all the topics discussed. Liubov Tupikina, a short-term fellow at the Learning Planet Institute exploring trajectories and networks, presented her own personal trajectory as a researcher. Audrey Brouillet, a postdoctoral researcher at the Institute of Research for Development in Montpellier, shared her work on climate change and its impacts on human populations.



"
THE LEARNING
PLANET INSTITUTE
ITSELF IS A PLACE
OF HUMAN SCALE,
CONDUCIVE TO
CONVERSATION
"
Louise Lassalle,
EURIP project head

KEY FIGURES*	
Master's programme, all tracks (Life, Learning and Digital Sciences)	
• 68% international students including 40% in their first year	average age of 28
• 117 Master's degree students	
• 57% women	
Doctoral school	
• 130 students	
• 55% women	
• 30% international students	

* Data for the 2020-2021 academic year.

WHAT IS EURIP GRADUATE SCHOOL?

► EURIP Graduate School for Interdisciplinary Research (École Universitaire de Recherche Interdisciplinaire de Paris) interfaces basic and applied research with the life, learning and digital sciences. It encompasses the AIRE (Interdisciplinary Approaches in Research and Education) Master's degree and the FIRE (Frontiers of Innovation in Research and Education) PhD programmes, both provided by the Université Paris Cité.

HOW IS ITS PEDAGOGICAL APPROACH UNIQUE?

► EURIP's student-centred pedagogical approach and academics are based on learning and applying cutting-edge scientific research methods, in addition to action research, entrepreneurship and interactions between science and society.

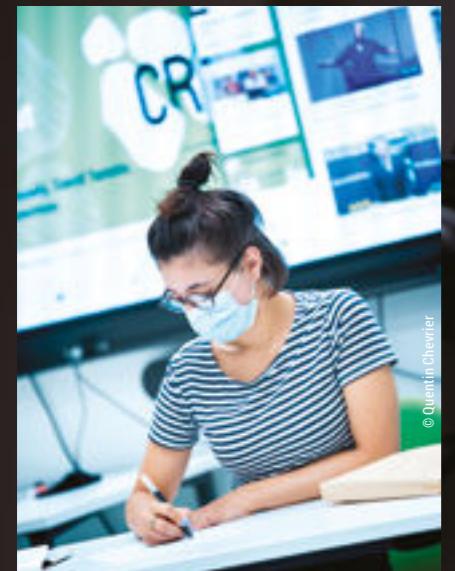


PhD students at their retreat in the South of France

EURIP

Open Science in all its forms

For the second year, Master's degree students in all tracks attended an interdisciplinary course on **Open Science** taught by Ariel Lindner, research director and department head, and other researchers from our collaborative. The course uses presentations, case studies and citizen science projects entirely designed and implemented by students, under the supervision and mentorship of the team of researchers, to ensure the application of best practices in projects. Many student projects addressed the impact of lockdowns on mental health, a sign that the pandemic has left some scars. It also shows that students perceive the Learning Planet Institute as a supportive, safe space where they can share their problems and contribute positively to society.



All boxes ticked for EURIP's thematic workshops

EURIP created an open, interdisciplinary setting for students to design and run workshops presenting their research. PhD and second-year Master's degree students organised eight such online events in February 2021. Contributions by outside speakers as well as the students' own presentations on topics ranging from complex systems in life sciences to the education and digital sciences made for a rich scientific agenda. The conferences garnered about 60 participants per half-day and welcomed for the first time Digital Sciences and Learning Sciences students enrolled in the AIRE Master's programme or the FAN programme at the FIRE Doctoral School. Feedback was very positive, even amid the pandemic. Clearly, the event was successful in its aim to create a space for dialogue between graduate students and the wider scientific community.



FIRE Doctoral School as seen by alumni

"An extremely diverse, open-minded and tolerant community" is how alumni perceive the FIRE Doctoral School a few years after leaving it. This was the finding of Ewa Zlotek-Zlotkiewicz, also an alumna, who interviewed some ten other former students. The respondents also highlighted the school's creative mindset, atypical approaches, interdisciplinary culture and many valuable teambuilding events, such as the annual retreat. They see the school as a "powerful mix of support and opportunities", a place where doctoral students feel seen and valued and where they can learn develop a wide array of skills across multiple fields. Interviewees also praised the international dimension of the Learning Planet Institute, especially foreign students, who appreciated the ease with which they could integrate campus life. Some graduates said that due to its network and reputation, the Institute was a name that opened doors for them. These interviews were conducted as part of a larger research project to monitor the career trajectories of all students, led by Anirudh Krishnakumar, a former AIRE Master's degree student and a FIRE graduate.



Four challenges, two days, one Covid Hackathon

Six students in the AIRE Master's programme participated in a 48-hour Covid Hackathon to come up with new tools to combat the pandemic. The event launched by the Direction Interministérielle de la Transformation Publique (Interministerial Department for Public Transformation), with the support of the Ministère des solidarités et de la santé (Ministry for Solidarity and Health), on 23 and 24 April 2021 attracted 180 participants in all, including the six students from the Learning Planet Institute. The four challenges of the Covid Hackathon were to better support Covid victims in the short and long term, ensure a smooth vaccination campaign rollout, find new ways to monitor the spread of the pandemic, and measure risks so as to promote virtuous practices. The AIRE students helped to develop an indicator of the risk of virus spread, based on temperature and humidity. They also explored correlations between messages of anxiety (Google Trends, call centres, etc.), infection rates, significant events and government information. Their participation exemplifies the Learning Planet Institute's core values of commitment, sustainability and collective intelligence.

Learning by doing & playing THE MAKERLAB, A TRANSFORMATION DRIVER

Learn by doing – with no holding back and with everyone sharing their expertise. That's the promise made by the MakerLab and the SDG Summer School every year. The MakerLab manager, Kevin Lhoste, and the student coordinator for the 2021 event, Soledad Li, explain.

What is the SDG* Summer School?

Kevin Lhoste. It's a month-long programme we hold each year for some 20 students from the Learning Planet Institute and elsewhere to design real-world solutions to challenges highlighted by the SDG. To do this, they have all the resources of the MakerLab at their disposal, as well as the guidance of mentors that we invite to join them. In addition to the activities that take place on our campus, programme participants attend a virtual international Summer School with other universities in Geneva, Singapore, Shenzhen and La Union (Chile). Every Friday, all participating students connect online to present their work.

Can you share a few of the projects from 2021 with us?

K.L. This year's theme was open research in health. One group designed a frugal centrifuge for a partner fablab in Ghana in need of equipment to perform molecular research. The machine the students designed could be produced locally from bicycle parts for less than €100.

Soledad Li. Another group explored music accessibility for people with disabilities. Their solution, using a foot pedal, enables a person to play the flute with one hand.



SDG Summer School students work on their projects at the MakerLab

“
SOME STUDENTS
SAY THEY
LEARNED MORE
IN ONE MONTH
OF SUMMER
SCHOOL THAN IN
AN ENTIRE YEAR
OF UNIVERSITY
STUDY.
”



Kevin Lhoste,
MakerLab manager

How do these projects transform how we learn and innovate?

S.L. The open-source approach and community facilitate problem-solving. The students at the school have very different backgrounds and learn a lot from each other. One participant, a philosophy major, told me that her collaboration with an engineer and a medical student on their project had profoundly altered her vision of the world and opened up whole new possibilities.

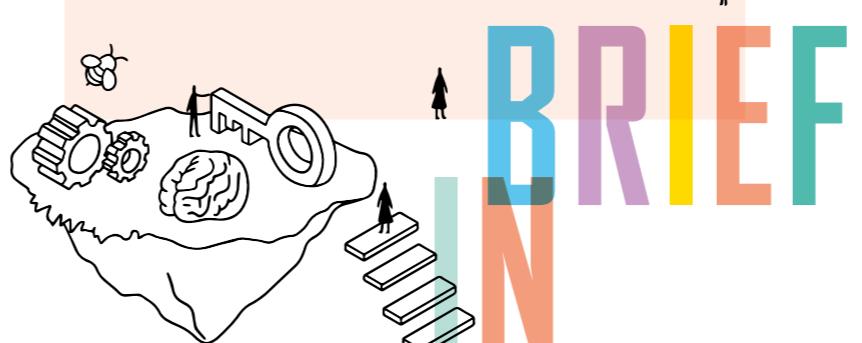
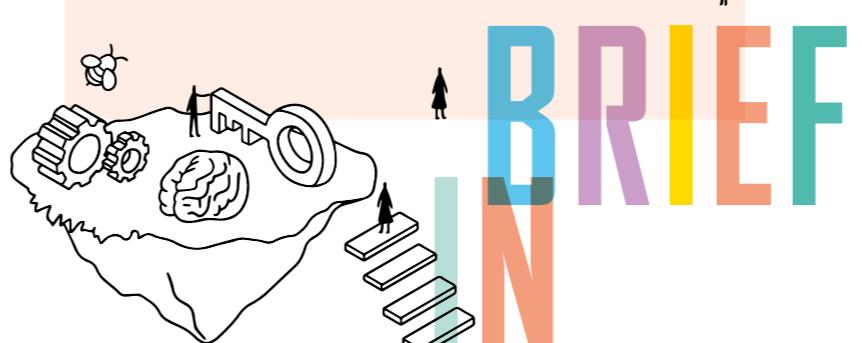
K.L. Some students say they learned more in one month of summer school than in an entire year of university study, because they were motivated by challenges whose solutions were within their reach. The younger students in particular also realised that they should not hold back. A person can find an effective solution without necessarily being an engineer or a PhD student. This approach unbridles their creativity and strengthens their transferable skills.

*SDG = Sustainable Development Goals of the United Nations.

THE OPEN-SOURCE APPROACH AND COMMUNITY FACILITATE PROBLEM-SOLVING.

Soledad Li,
AIRE Master's degree student and student
coordinator for the 2021 SDG Summer School

© ARIE
© ARIE



© CRI - Université de Paris

SDG Summer School students work on their projects at the MakerLabMovuino wristbands developed to enhance in-stadium appeal by digitising the spectator experience



© CRI - Université de Paris

KEY FIGURES*

- 6 courses including engineering and robotic
- 10 research projects completed
- 2 industrial partnerships

*Data for the 2020-2021 academic year.

- 4 student projects mentored over the long term
- 3 MakerLab-mentored students admitted to FIRE Doctoral School

An application to diagnose breast cancer in remote regions

In Nepal, four women are diagnosed with breast cancer every minute. For one in four diagnosed, the disease is fatal.

To accelerate the early detection of cancer in remote areas, Sweekrity Kanodia, a FIRE doctoral student originally from a small Nepalese village herself, created the BreMo (Breast Health in Nepal Monitoring & Awareness) application. The open-source information app can be modified or enhanced by anyone. It is used in combination with a portable remote monitoring device, also open-source. Sweekrity Kanodia's project was facilitated by the Learning Planet Institute environment, with its research laboratory and MakerLab, as well as the supportive guidance of many researchers. Her next step is to collaborate with developers to roll out BreMo and go into the field to train women volunteers to promote use of the device.

Creating massive interactive experiences in real time

How can we digitise the spectator experience to enhance in-stadium appeal? This question, raised by the organisers of the Paris 2024 Olympic Games, is the focus of a research project called M2IX (Massively Multi-user Interactive experiences).

Led at the Learning Planet Institute and funded by Erganeo, in partnership with Université Paris-Est Marne-la-Vallée (UPEM), the project involves Movuino, an open-source development platform dedicated to motion and movements.

The objective is to create massive interactive experiences in real time for large stadium venues. This requires the development of a specific network architecture enabling thousands of wristbands to send and receive motion and light data in real time, creating a unique immersive experience.

INCLUSION

Revealing talents with Réalise Tes Rêves

As part of a consortium with the Université Catholique de Lille, the LICA lab, Synergie Family and Chance, the Learning Planet Institute has supported nearly 1,500 people through the Réalise Tes Rêves programme, which helps the long-term unemployed to rebuild confidence and put together a project. The programme eschews the traditional top-down approach to knowledge transmission and instead asks facilitators to position themselves as sharers of experience and know-how. From September 2020 to July 2021, more than 1,100 workshops were held for programme beneficiaries, on subjects ranging from self-awareness to resume-writing.



Pupil using an adapted device

Creating inclusive textbooks

Automating the work to adapt textbooks, making them accessible to students with disabilities is the objective of an innovative research project led by Caroline Huron, a cognitive science researcher at the Institute. Her interdisciplinary approach merges multiple areas of expertise: medicine, pedagogy, cognitive psychology, human-machine interactions and interfaces, digital accessibility and smart system design. Dubbed MALIN (a French word for smart), the project is funded by the Agence Nationale de la Recherche.



A CHILD WITH DYSPRAXIA CAN ALSO BE A STRONG STUDENT

Caroline Huron,
psychiatrist and cognitive
science researcher



A researcher in one of the Learning Planet Institute's labs



Public speaking workshop

Artificial intelligence comes to the aid of autistic children

Researchers have come up with a new idea to help children with autism spectrum disorder convey their emotional state: a wearable device that collects physiological data. This project was initiated by Roberto Toro, research head at the Department of Neuroscience, Institut Pasteur, and a long-term fellow at the Learning Planet Institute, in collaboration with Cour de Venise, an education centre for people with disabilities, and is being led by Rajeev Mylapalli, a second-year AIRE Master's degree student. The first step was to build a Movuino stress-monitoring device in our MakerLab. Next came the soft robotics, and last was the fabrication of a frugal respiration rate sensor, using a conductive textile prepared by polymerisation in our labs.



AI-powered
portable device
prototypes
supporting
children with
autism



High school students during a For Girls in Science workshop

Seeking women researchers for our collaboratory

The Learning Planet Institute has created a fully-funded Women in Science Fellowships grant to attract and recruit exceptional women scientists. The Institute is also striving to advance gender diversity in its research collaboratory (UMR 1284), a thriving collaborative community created with Université Paris Cité and Inserm. Women scientists looking for a supportive environment in which to grow, expand their research field or launch a new programme in a priority research area are encouraged to apply, as are experienced candidates wishing to contribute as mentors in the research community. The first recipient of the grant, Dr. Sasha Poquet, is working on the intersection of learning analytics and computational social sciences (study of learning networks, social learning behaviour, etc.).

Increasing the representation of women in STEM occupations

Because women in STEM careers are still being held back by gender bias, the Fondation L'Oréal and the Learning Planet Institute are taking action with "For Girls in Science". The programme aims to interest high school girls in scientific careers, encourage future women researchers and reward excellence in these fields where women are still underrepresented. Promoted and funded by the Fondation L'Oréal, "For Girls in Science" benefits from the Savanturiers programme's pedagogical expertise in designing and implementing ways to select and support high school girls. The new programme was launched in June 2021 and immediately followed by a week-long immersion in scientific and cultural activities for the future researchers.

The Learning Planet Institute, BOUNDLESS OPPORTUNITIES FOR YOUNG RESEARCHERS

Ayan Abdi Abukar and Katharina Kloppenborg, both PhD students at the FIRE Doctoral School, share their vision of the research collaboratory.

Your research subjects and approaches are different. What do you nevertheless have in common?

Katharina Kloppenborg. The "open science" research conducted at the collaboratory is just as the name says: open. We create resources that are accessible to everyone. Thanks to my mentors, for example, I interact with members of the personal science community all over the world.

Ayan Abdi Abukar. Whether you conduct research in a virtual environment or in a lab, opening up a project to the wider community – and thereby sharing your contribution with other researchers anywhere in the world – significantly increases the value of your work.

How is the Learning Planet Institute's approach to research different?

A.A.A. The collaboratory promotes an interdisciplinary approach as opposed to the conventional model with specialists working in silos. Here, we are not necessarily surrounded by researchers working in the same area, but we benefit from the diversity of researchers exploring other fields. The potential this offers is huge! We never know who we will run into or what collaborations may ensue.

K.K. First of all, the Learning Planet Institute chooses research projects based on their impact. Also, the environment here is very open to fresh approaches and emerging areas of research, such as my field, personal science. We are given a lot of freedom to choose



our own methods and even innovate and develop new ones. The fact that our working language is English facilitates a global openness.

How will your time at the Learning Planet Institute influence your path as a researcher?

K.K. I am learning a lot here because I do applied research, not just theory. My project has several dimensions, which include design, dialogue with the community, publication and scientific communications. I am expected to think for myself, to question existing research methods and propose and test new ones, for example. All of these aspects are unique to the collaboratory.

A.A.A. The transparency of the Learning Planet Institute has allowed me to learn a lot about how institutions operate and how their value is determined by the communities within them. What I have learned about creating a community and interdisciplinary communication will certainly be very useful in my career.



Better understanding how mosquitoes spread disease

As a biophysicist-slash-mosquito hunter-slash-animal behaviour specialist, Felix Hol feels right at home in the interdisciplinary environment of the collaboratory. As a hybrid Learning Planet Institute and Institut Pasteur researcher, he benefits from the complementary strengths of each institution. He and his team have embarked on a major project to find out how the dengue virus modifies the behaviour of biting mosquitoes.



1

•DYNAMICS OF ABANDONMENT OF ONLINE COURSES

Jake Wintermute and Ariel Lindner, along with Matthieu Cisel, a teacher at the Learning Planet Institute, published a study on the dynamics of drop-out from online courses. They analysed a vast set of data: more than one million enrolments in France Université Numérique (FUN), a French MOOC platform.

2

•WHAT IS CITIZEN SCIENCE?

Muky Haklay, Bastian Greshake Tzovaras, Alice Motion and Ariel Lindner collaborated with researchers from eighteen international institutions for a project that addresses an interesting epistemological question: what exactly is citizen science? Their survey garnered more than 5,100 responses from its 330 participants. Their analysis reveals the plurality of understandings of what citizen science actually means.

3

•BRAINHACK, A MORE INCLUSIVE MEETING FORMAT

Katja Heuer is one of the main authors of a study in which she and some 50 other researchers describe Brainhack. This type of meeting promotes scientific collaboration and education in an open environment that is conducive to inclusions, enhanced coding practices, more reproducible methods, an accelerated spread of knowledge and numerous opportunities for collaboration.

WHAT ARE THE MAIN RESEARCH TOPICS AT THE LEARNING PLANET INSTITUTE?

- ▶ OPEN LEARNING: from understanding learning to human-machine paradigms.
- ▶ OPEN AI: understanding and shaping current digital transition in the context of learning, health and/or human-machine paradigms.
- ▶ OPEN HEALTH: from data-rich research to frugal software/hardware development.
- ▶ OPEN SYNTHETIC AND SYSTEMS BIOLOGY: from foundational understanding of living systems to open biotech and open pharma solutions.
- ▶ OPEN PHRONESIS: meeting the ethical challenges of our times.

•2021 PUBLICATIONS

Among the many scientific publications released this year, here are three that illustrate the range of subjects addressed at the Learning Planet Institute.



1

•DYNAMICS OF ABANDONMENT OF ONLINE COURSES

Jake Wintermute and Ariel Lindner, along with Matthieu Cisel, a teacher at the Learning Planet Institute, published a study on the dynamics of drop-out from online courses. They analysed a vast set of data: more than one million enrolments in France Université Numérique (FUN), a French MOOC platform.

2

•WHAT IS CITIZEN SCIENCE?

Muky Haklay, Bastian Greshake Tzovaras, Alice Motion and Ariel Lindner collaborated with researchers from eighteen international institutions for a project that addresses an interesting epistemological question: what exactly is citizen science? Their survey garnered more than 5,100 responses from its 330 participants. Their analysis reveals the plurality of understandings of what citizen science actually means.

3

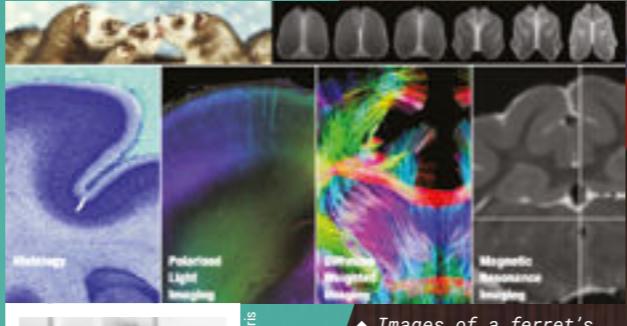
•BRAINHACK, A MORE INCLUSIVE MEETING FORMAT

Katja Heuer is one of the main authors of a study in which she and some 50 other researchers describe Brainhack. This type of meeting promotes scientific collaboration and education in an open environment that is conducive to inclusions, enhanced coding practices, more reproducible methods, an accelerated spread of knowledge and numerous opportunities for collaboration.

RESEARCH

A digital ecosystem to help people with cognitive disorders

A long-term research fellow from 2019 to 2021, the Chilean Roberto Toro, doctor of cognitive science, and his team worked on an open platform called **Connect** to simplify the collection and sharing of anonymous public data produced by applications and wearables (smart clothing or accessories equipped with electronics). Most of these applications do not collect data or are closed, making it impossible to quantitatively assess their performance or combine them. The research objective is to assist people with cognitive disorders, who increasingly use smart applications for entertainment, to communicate and to learn. By enabling transparency and interconnection, Roberto Toro's work aims to create a virtuous circle to improve these applications. For example, the team developed MaVoix (MyVoice), a picture-based communication app to help nonverbal people with cognitive disabilities. MaVoix records the selection and use of pictures and their combinations. The tool will accommodate various cognitive profiles and enable the design of a recommendation system to expand the user's range of communication.



© CRI - Université de Paris

▲ Images of a ferret's brain development



A MOOC that considers the relationship between young children and digital technologies

One of the 2021 initiatives by Premiers Cris* was a new MOOC on an issue that has only recently emerged: young children's development in the digital age. The MOOC takes an interdisciplinary approach, questioning a range of early childhood stakeholders, with the support of Lab Heyme. In five episodes, it considers the relationship between young children and digital technologies and encourages critical awareness. To accompany the MOOC, launched on 14 January 2021 on the FUN-MOOC platform, five seminars featuring the various project participants were held. This MOOC is an example of the contribution that Premiers Cris wants to make to research. The collaboratory's mission is to reduce inequalities in early childhood development. How? By rethinking research practices, by merging science, design and fieldwork, but also by facilitating collaborative action research projects. The goal is to evolve research practices to reinforce the skills of early childhood professionals, investigate issues on the ground and embed experimentation in the environment and daily lives of young children.

Children involved in the MOOC on young children and digital technologies ▼



© CRI - Université de Paris

* Premiers Cris is an initiative led by Marion Voillot, FIRE doctoral student, and Lisa Jacquet, FIRE graduate.

Gain a clearer picture of mental fatigue

During her stay at the Learning Planet Institute, the researcher and short-term fellow Morgane Aubineau conducted a study on mental fatigue and its many impacts on people with an autism spectrum disorder. Her work began with an in-depth literature review on fatigue (definitions, measurements, neurological basis), which she enriched with interviews of twelve autistic adults aged between 18 and 35. Her objective was to use participatory methods to co-create online questionnaires on mental fatigue among high-school students with autism, one for the youths and one for their parents. Forty students and their families answered the survey in May 2021, enabling Morgane Aubineau to pinpoint the times when the students' fatigue was greatest and the activities that were most problematic at those times (workload, social interactions, etc). Her research will provide a clearer picture of mental fatigue and its indicators among this population. This is significant because fatigue is currently one of the biggest concerns of young adults with autism spectrum disorder.



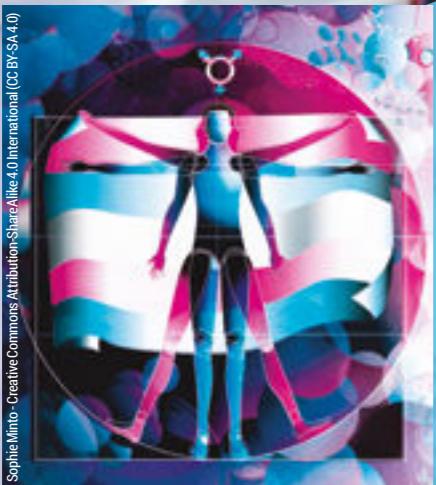
From the Learning Planet Institute to IBM Research: the career path of Remy Kusters

Currently employed at IBM Research, Remy Kusters remembers his formative experience in the research collaboratory with gratitude. The young physicist arrived with the ambition to design tools enabling scientists to use machine learning to discover models from their data. Despite his lack of experience in that field, he found the support he needed at the Learning Planet Institute. He was trusted to carry out his ambitious interdisciplinary project and approach the topic from a novel angle. In this environment, together with other researchers, Remy Kusters developed DeepMoD (Deep learning driven Model Discovery of Differential equations), an innovative tool that is now available in open source on Github and the focus of four conference and journal publications. Today, he is continuing his work on interpretable machine learning for IBM Research, with the objective to facilitate the interpretation of processes for business automation.



© CRI-Université de Paris

Artwork inspired by the article published in the Autumn 2021 issue of Physiology News, "Nothing about us, without us: Are we asking the right questions in transgender research?" ▶



© P. Sordelli / iGEM Paris Bettencourt 2021

Research to advance health care for trans people

Despite 60 years of gender-affirming surgery, the neovaginal microbiota of trans women is still poorly known. Characterising its composition is the ambitious research project led by Clara Lehenaff, second-year AIRE Master's degree student, supported by the Peer-Produced Research Lab. For this project, she has collected samples from 43 trans women for sequencing and characterisation. Her objective is to reduce the gap between knowledge of cisgender women's microbiota, which has enabled the development of effective targeted treatments for many bacterial and fungal infections, and the lack of knowledge of the microbiota of trans women. This project supports the UN's sustainable development goals 3 (good health and well-being) and 5 (gender equality).

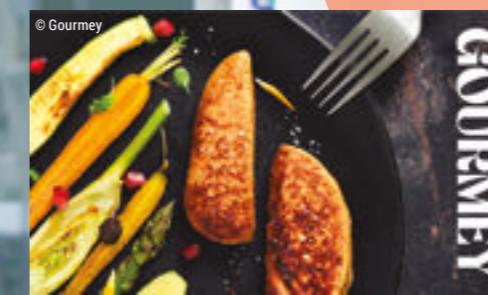
© iGEM Paris Bettencourt 2021
3D rendering of the Paris Bettencourt team's project implementation scenario ▶

iGEM 2021: a new-generation indigo pigment grabs the gold

For its entry to the iGEM 2021 international synthetic biology competition, the iGEM Paris Bettencourt team worked on a new type of indigo pigment. They developed a method to safely dye textiles without the need for purification or additional chemicals, using bacterial minicells. Since the nanosized cells have no chromosomes, the technique ensures the safety of synthetic biology applications. Students and researchers took part in this work, which included creating a working prototype of a machine that produces minicells. Their outstanding results earned the iGEM Paris Bettencourt team a gold medal and the Best Manufacturing Project award. The team was also nominated for three other awards: Best Wiki, Best Human Practices and Best Hardware.

Synthetic biology: a start-up incubated at the Learning Planet Institute

The start-up Gourmey has set out to reduce the environmental impact of food, through science. More specifically, it uses synthetic biology to design, develop, build or modify biological systems, specifically in order to produce cultured meat, in hopes of helping feed the planet without compromising its ecosystems. Gourmey began as a project by three friends: two biologists, Victor Sayous and Antoine Davyoff, and a researcher in the social sciences, Nicolas Morin-Forest. Their transdisciplinary enterprise aligns completely with the philosophy of the Learning Planet Institute. Naturally, the company has found a place in the Institute ecosystem. By hosting socially engaged start-ups that share the same scientific and methodological interests, the Institute strives to build close relationships with innovative young companies.



◀ Lab-grown foie gras

Digital POWERING TRANSFORMATIONS

The solutions developed in the Learning Planet Institute's digital ecosystem are now available to external learning organisations looking to achieve a transformation. Our Digital Campus team delivers this extensive and growing range of services.

The Learning Planet Institute has embedded digital technologies into its operations from the very start and even designed a model digital "open campus". It is a collaborative digital ecosystem, made up of three interconnected platforms, to facilitate the development of learning collectives. *"The first platform, Projects, enables researchers, students and other users to document and promote their collaborative projects and also connects co-learners and mentors. The second platform, WeLearn, is a sort of back office, like a GPS for knowledge that ties different ecosystem components together using collaborative and artificial intelligence. On the third platform, Skills, users describe who they are and what they are working on in order to link up with other people with related interests,"* said Éric Cherel, Chief Information Officer.

"
THE SERVICES WE PROVIDE MUST COME WITH AN ASSURANCE OF HIGH QUALITY.
"

—Éric Cherel,
Chief Information Officer



© CRI - Université de Paris

IT Workshop
during the
Discovery Days



Students in the Frontiers of Life Sciences Bachelor's degree programme presenting their SDG semester project

© Antonin Weber / Hans Lucas

Exploring the potential of project-based learning

A prime example of the work carried out at the Institut des Défis in 2021 is an initiative led by eight students in Semester 6, Life Sciences

Bachelor's degree programme. They collaborated to develop three interdisciplinary research projects – applying project-based learning principles – to craft potential solutions to a sustainability issue. The projects involved some 60 course hours, facilitated by thirteen expert speakers, four tutors and a coordinator. The students presented their projects to a panel of scientists in May 2021.

Towards a more sustainable university with the Institut des Défis

The Institut des Défis (IDD, Challenge Research Institute) was co-founded in 2019 by the Learning Planet Institute and the Université Paris Cité to support the university's transformation and contribution to the UN's Sustainable Development Goals.

The IDD builds on the Learning Planet Institute's emblematic know-how, tools and innovation-driving environment to develop programmes that will shape the university of the future and give it the means to tackle the major challenges of our times. As such, it is one of the Initiatives of Excellence (Idex) projects at Université Paris Cité, which are funded under the French state's Investments for the Future programme (PIA). The IDD is more of an operational institute than a research institute. It develops tangible actions and deliverables, in the form of documented and reproducible programmes built for Université Paris Cité professors, students and researchers, to lead the university towards more sustainability. Since the university's transformation must serve as an example for the society's transformation, the IDD develops programmes addressing four major issues of our times: the digital transition, learning innovation, participatory science and international development. The IDD is therefore a "think & do" institute making the Université Paris Cité the forerunner of a new university model.



▲ Co-construction workshop to build the university of the future

INTERNATIONAL STUDENTS:

Tailored services welcoming them to the Learning Planet Institute*

- 27 international students and researchers are housed at the Charles V residence, made possible through a partnership with the City of Paris.

- 40 students received assistance for their move.

- 80 individual interviews were held with international students to help them settle in.

- 21 group workshops were held to provide information on aspects of living in France – banking, health care, transportation, housing, visa, taxes, social services, and so on.

- 25 institutions are listed in a directory of English-speaking mental health professionals compiled for students by the Learning Planet Institute.

- 1 regularly updated guide for students on France's social security system and how it works, as well as rules to follow during the COVID-19 pandemic.

- 1 series of fact sheets on key matters, such as using public transportation and opening a bank account, was produced for international students.

*Data for the 2020-2021 academic year.



Students in the courtyard of the Learning Planet Institute during the Discovery Days



Learning by doing: two training sessions in preparation for the SDG Summer School

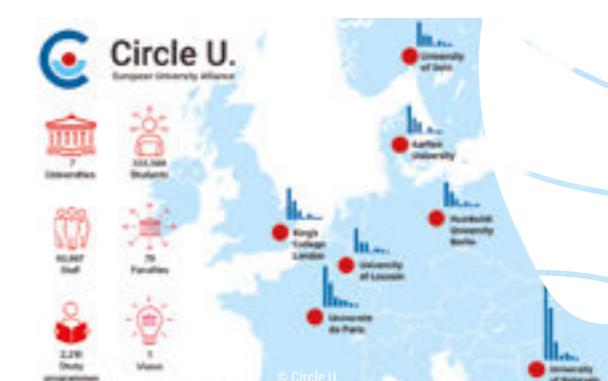
In 2021, leading up to the fourth École d'Été des ODD (SDG Summer School), the Learning Planet Institute reinforced its collaboration with two training sessions – one for facilitators and another for the event coordinator. The seven attendees of the first workshop were former Summer School participants in 2020 and had requested this type of preparatory training. Over two days, they learned how facilitation techniques, how to position themselves as facilitators and how to use digital tools to optimise the online learning. The project head in charge of coordinating the event received one day of training, during which the team shared every resource used the previous year and important advice on coordinating the summer school.

*Initiated in 2016 by Aix-Marseille Université (AMU), Agence Française de Développement (AFD) and Institut de Recherche pour le Développement (IRD), the École d'Été des ODD helps prepare the future scientists, economists and politicians who will be tackling our world issues. Since 2020, the CRI and now the Learning Planet Institute implement an innovative teaching approach at the Summer School.

Developing crowdsourcing to achieve the UN's SDGs

How can citizen science and crowdsourcing support the Sustainable Development Goals of the United Nations? The answer to this question is the cornerstone of Crowd4SDG, a three-year Horizon 2020 research and innovation project supported by the European Commission's Science with and for Society (SwafS) programme. Crowd4SDG seeks to build AI-enhanced crowdsourcing tools and use those tools to encourage local innovation. Through an innovation cycle called GEAR (Gather, Evaluate, Accelerate, Refine) innovation cycle, the transdisciplinary Crowd4SDG consortium of six partners* promotes the development of citizen science projects to achieve the UN's Sustainable Development Goals, especially climate action. As part of the consortium, a research team led by Marc Santolini is exploring how collaboration, diversity and inclusion are correlated to the performance of citizen science projects. Their initial results show that this performance can be measured using the digital trails left by interactions between participants, their use of crowdsourcing tools and declared data.

*University of Geneva, CERN, CSIC, Politecnico Milano, UNITAR and the Université Paris Cité / Learning Planet Institute.



Circle U.: Universities form an alliance for a better planet

An inclusive, interdisciplinary European university. A university deeply engaged in research. A university where all stakeholders collaboratively develop solutions for a healthy, peaceful, democratic and prosperous planet. These are the ambitions of Circle U., an alliance of seven universities* supported by the European Commission (Erasmus + Project). Circle U. was also selected for a project to develop research and innovation collaboration in the alliance, ERIA (Empowering Research and Innovation Actions in Circle U.), which launched on 1 September 2021. Ariel Lindner, head of research, and Muriel Mambrini, co-director of the FIRE Doctoral School, coordinate the work for these two projects. Some of the latest tangible advances made by Circle U. are building a common course catalogue, recruiting 35 research chairs and creating a shared directory.

*Universities Paris Cité, Oslo, Belgrade and Aarhus, Humboldt University in Berlin, King's College in London, Catholic University of Louvain.

Living Campus: AN ENGAGING ENVIRONMENT

Léo Houdebine, head of the Sustainable Development project, and Nicolas Steinik, in charge of the Sustainable Campus initiative, talk about the Living Campus's goals and news from 2021.

What are the goals of the Living Campus?

Léo Houdebine. Our idea from the start was to create a resource-efficient, energy-efficient campus while raising awareness of sustainability issues. We also wanted it to be an inclusive, open campus – a space where students can conduct their research and, at the same time, contribute to and be a part of campus life.

How does the Learning Planet Institute engage its community in the Living Campus?

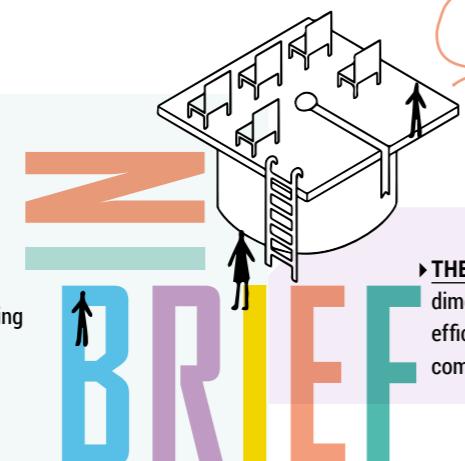
Nicolas Steinik. We co-build projects that we carry out with the Learning Planet Institute's students and staff. For example, right now we are drafting a sustainable development and social responsibility road map.

L.H. Sustainability issues are systemic and intertwined with all our activities. We try to help everyone to recognise what these issues are and ensure that their activities support the Living Campus, relying in particular on a collective approach and our research methodologies.

What initiatives did you take last year?

N.S. In the spring of 2021 we launched a sustainability awareness campaign that spanned three months. Each week, we held one major event focusing on a different theme, such as gender, diversity or climate change. We also organised an event with participants of the citizen climate convention.

► **THE LIVING CAMPUS** began as an initiative by two Master's degree students. This project intersects all of the Learning Planet Institute's activities. It aims to support and promote the development of sustainable actions and sustainability awareness, as well as encourage students to participate in the decision-making processes of higher education institutions.



► **THE LIVING CAMPUS** has three dimensions: it is an energy- and resource-efficient campus, a learning campus and a community engagement campus.



KEY FIGURES*

- 16 student clubs working towards SDGs
- 6 open forums for students to participate in campus life
- 12 sustainable development awareness workshops

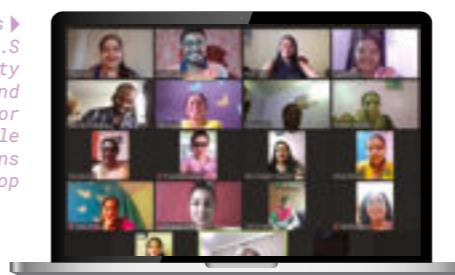
• Over 100 awareness programme participants

• 10% reduction in water consumption, from 2019

* Data for the 2020-2021 academic year.

Learning 4 Sustainability Club powers through the pandemic

Undaunted by the pandemic, the Learning 4 Sustainability student club continued throughout the year to spread the Learning Planet Institute philosophy around the world, by designing local solutions with local stakeholders to promote interdisciplinary learning, open science and innovation. Its 2021 initiatives include the C.L.A.S.S - Community Learning and Actions for Sustainable Solutions workshop series, held over seven Sunday mornings throughout the summer, in which 20 teachers took part. The Learning 4 Sustainability club is one of 16 active clubs at the Learning Planet Institute, which total more than 70 members and host some 50 events each year. They are open to the public, students and non-students alike, and provide access to an array of logistical, material, financial and human resources.



► **THE LIVING CAMPUS** offers students numerous opportunities to engage in extracurricular activities, such as clubs, and lead research-led projects.



My Little Planet: challenges to spur environmental action

Ma Petite Planète (My Little Planet) is a team-based game for friends, families, colleagues or classmates to tackle environmental issues together. Players form teams, sign up in the application and then have three weeks to validate as many points-earning challenges as possible. They also have to avoid those activities that detract points. The game raises awareness and gets people involved in protecting the environment, as they vie for the winning title. The Learning Planet Institute and the Living Campus formed two teams of 17 players in all, made up of students and staff. They ticked off 244 challenges and experienced team-bonding moments, working together towards a shared goal – spreading green practices to support the ecological transition. All this was celebrated, in compliance with health and safety protocols, with a group lunch showcasing everyone's sustainable culinary talents.

#LearningPlanet Festival: TOMORROW'S EDUCATION AS SEEN BY TODAY'S YOUTH

For the International Day of Education in January 2020, UNESCO and the Learning Planet Institute celebrated learning by launching the #LearningPlanet alliance and festival. With this initiative, they aim to bring together diverse communities, around the world.

The International Day of Education was created in 2018 to promote education as a human right. In addition, it celebrates the act of learning in all its diversity, giving a voice to all those who shape education every day and to novel, transformation-driving ideas. "The #Learning Planet alliance with UNESCO has proven to be very complementary, since we share the ambition to connect institutions with innovators on the ground to identify, co-develop using agile practices and roll out innovative learning solutions around the world, aligned with the UN's Sustainable Development Goals," said Stefania Giannini, UNESCO Assistant Director-General for Education.

Promote education for collective solutions to the challenges facing our world today

All human and social progress depends on access to education. Education's role is even more important in interdependent knowledge societies facing common challenges. It is a passport to empowerment, emancipation, and individual and collective transformation. It brings awareness. "Education makes it easier to understand the issues and makes it possible to design fair and altruistic solutions. For this, education must be transformative. It must be a space of freedom and mutual respect that fosters critical thinking, empathy and openness to diversity," added Stefania Giannini.



▲ Stefania Giannini, UNESCO
Assistant Director-General for Education

A festival attesting to strong youth engagement

The biggest takeaway of the #LearningPlanet Festival in 2021 is its outstanding participant engagement. "Young people will co-create the future: they are incubators of solutions! The festival creates spaces for reflection and debate, where people can confront ideas, approaches and cultures to learn to work together. It's not just a hub of innovation, it's a space for learning democracy and rebuilding it according to shared, fundamental principles, such as the right to a quality education and lifelong learning and establishing education as a public and common good," said Stefania Giannini.

WHAT IS #LEARNINGPLANET?

Launched in 2020 by the Learning Planet Institute and UNESCO, #LearningPlanet is a global alliance of organisations working together to shift the focus of education towards collectively solving the major challenges of our times.

WHAT CONCRETE ACTION DOES #LEARNINGPLANET TAKE?

#LearningPlanet connects institutions (such as governments, multilateral organisations and local authorities) with innovators on the ground (such as universities, NGOs, youth movements and social entrepreneurs) to identify, co-develop and roll out the most innovative and effective learning solutions.



#LearningPlanet circles
to bring communities
of practice together

▲ Elected officers of the Youth Empowerment Circle

#LearningPlanet circles are designed to step up dialogue among stakeholders working towards a common cause. The first two circles launched during Catalysing Change Week in the spring of 2021. One is the Sustainable Development Education Circle, a partnership with the Club of Rome, which unites trailblazers in sustainable development education. Its first priority is to tackle challenges specific to African countries, taking local contexts and cultures into account. The other is the Youth Empowerment Circle, supported by Children in All Policies, the Catalyst 2030 network of social entrepreneurs, Ashoka France and the City of Paris. It explores all the main issues affecting young people's future, creating connections between organisations and institutions so that solutions can be truly co-designed.

KEY FIGURES

#LP Festival 2021:
• 250 online sessions

• 330 speakers

• 10 000 participants

• 100 countries represented

• 163 members and official partners of the #LearningPlanet alliance

The Little Prince contest:
• 2,500 contributions
in the UN's six languages

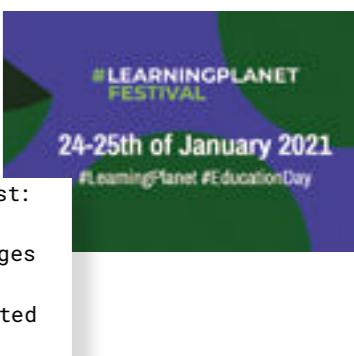
• 50 countries represented



The #LearningPlanet Festival gives a platform to young writers

Every January, on the International Day of Education, the #LearningPlanet Festival gathers hundreds of organisations collaborating under its banner.

The festival's 2021 agenda featured 250 online sessions and 330 speakers and was attended by 10,000 participants from some 100 countries. Thousands also attended online events hosted by partners such as UNESCO and the Maison de l'Apprendre. The 24 January 2021 events also put the spotlight on the six winners and 60 finalists of the "Conversations with the Little Prince" writing contest held by the CRI (now the Learning Planet Institute), UNESCO, the Fondation Antoine de Saint Exupéry pour la Jeunesse and the Labo des Histoires, in which young people (ages 6 to 25) were invited to share their lockdown experiences. More than 2,500 submissions in the six languages of the United Nations were received from more than 50 countries.



CRI association

STATUTORY AUDITOR'S REPORT ON THE FINANCIAL STATEMENTS

CRI ASSOCIATION

Registered office: 8-10 rue Charles V - 75004 Paris.

**Statutory auditor's report on the financial statements
for the year ended 31 August 2021.**

To the Board of Directors of the CRI association.

Opinion

In accordance with our appointment as statutory auditors by your members at their Annual Meeting, we have audited the accompanying financial statements of the CRI association for the year ended 31 August 2021.

In our opinion, the financial statements for the year give a true and fair view of the financial position, the assets and liabilities, and the results of the association, in accordance with generally accepted accounting principles in France.

Basis of our opinion**AUDIT FRAMEWORK**

We conducted our audit in accordance with professional standards applicable in France. We believe that the information that we collected provides a sufficient and appropriate basis for our opinion.

Our responsibilities under those standards are stated in the "Responsibilities of the Statutory Auditor in relation to auditing the financial statements" section of this report.

INDEPENDENCE

We conducted our audit, in accordance with the independence rules laid out in the French Commercial Code (Code de commerce) and in the code of conduct of the statutory audit profession in France, between 1 September 2020 and the date on which we issued our report.

JUSTIFICATION OF OUR ASSESSMENTS

The global crisis caused by the Covid-19 pandemic created a particular environment for the preparation and auditing of financial statements for the year. The crisis and the exceptional public health emergency measures have had multiple consequences for businesses, impacting their activities and financing in particular and increasing uncertainty about their future prospects.

Some of these measures, such as travel restrictions and

remote working, have also affected businesses' internal organisation and how audits are conducted.

In this complex and changing environment, as required by Articles L.823-9 and R.823-7 of the French Commercial Code relating to the justification of our assessments, we inform you that the key assessments made, in our professional judgment, related to the appropriateness of the applied accounting principles.

Those assessments were made in the context of our audit of the financial statements taken as a whole and in the formation of our opinion stated above. We do not provide a separate opinion on specific items of the financial statements.

Specific verifications

We also performed, in accordance with professional standards applicable in France, the specific verifications required by laws and regulations.

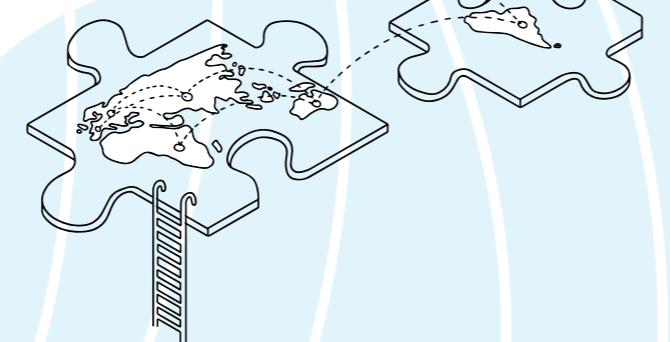
We are satisfied that the information given in the financial report of the Executive Committee dated 16 December 2021 and in the documents concerning the financial position and financial statements addressed to the Board of Directors is fairly stated and agrees with the financial statements.

Responsibilities of Management and persons involved in governance in relation to the financial statements

Management is responsible for preparing financial statements that present a true and fair view, in accordance with generally accepted accounting principles in France, and for setting up the internal controls it deems necessary for preparing financial statements that do not contain any material misstatements, whether due to fraud or error.

When preparing the financial statements, Management is responsible for assessing the association's ability to continue as a going concern, for presenting in those statements any necessary information relating to its status as a going concern, and for applying the accounting concept of going concern, except where there is a plan to liquidate the association or discontinue its operations.

The financial statements have been approved by the treasurer.

**Responsibilities of the Statutory Auditor in relation to auditing the financial statements**

Our responsibility is to prepare a report on the financial statements. Our objective is to obtain reasonable assurance about whether the financial statements, taken as a whole, are free of material misstatement. Reasonable assurance means a high level of assurance, although there is no guarantee that an audit conducted in accordance with professional standards will systematically detect all material misstatements. Misstatements may arise from fraud or error, and are regarded as material when they can reasonably be expected, individually or together, to influence the economic decisions that users of the financial statements take on the basis of those statements.

As stated by Article L.823-10-1 of the French Commercial Code, our audit assignment does not involve guaranteeing the viability of your association or the quality of its management. When conducting an audit in accordance with professional standards in France, Statutory Auditors use their professional judgment throughout the audit. In addition:

► they identify and assess the risks that the financial statements contain material misstatements, whether through fraud or error, define and implement audit procedures to address those risks, and collect information that they regard as sufficient and appropriate as the basis for their opinion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, because fraud may involve collusion, falsification, voluntary omissions, false statements or the circumvention of internal controls;

► they familiarise themselves with the internal controls relevant to the audit, in order to define audit procedures appropriate to the situation in hand, and not in order to express an opinion on the effectiveness of internal control;

► they assess the appropriateness of accounting policies adopted and the reasonableness of accounting estimates made by Management, along with information about those estimates provided in the financial statements;

► they assess whether Management has applied appropriately the going concern convention and, based on information collected, whether or not there is a material uncertainty arising from events or circumstances likely to call into question the association's ability to continue as a going concern. That assessment is based on information collected until the date of the auditors' report, although it should be borne in mind that subsequent circumstances or events may call into question the association's status as a going concern. If the Statutory Auditors conclude that there is a material uncertainty, they draw the attention of those reading their report to information provided in the financial statements in relation to that uncertainty or, if that information is not provided or is not relevant, they certify the financial statements with reservations or refuse to certify them;

► they assess the overall presentation of the financial statements and assess whether the financial statements reflect the underlying operations and events so that they give a true and fair view.

Paris La Défense, 16 December 2021
KPMG S.A.

Isabelle Le Loroux
Electronique
Responsable de l'audit
Date: 16/12/2021
09/10/02 - 01/1997
Isabelle Le Loroux
Partner

KEY FIGURES 2020-2021

ACTUAL BUDGET

€10.4m

OPERATIONS & ACTIVITIES

+ **€0.1m**

INVESTMENT

= **€10.5m**

TOTAL

FUNDING OF ACTIVITIES

€3.4m

PUBLIC FUNDING

+ **€6.8m**

DONATIONS & SPONSORSHIP

+ **€0.3m**

OWN RESOURCES

= **€10.5m**

TOTAL

SPENDING

TEACHING ▶ 33.7%

RESEARCH ▶ 24.7%

**CROSS-FUNCTIONAL
INNOVATION** ▶ 20.4%

CAMPUS ▶ 13.5%

▶ 7.7%

PARTNERS



Commission européenne

The Learning Planet Institute develops its academic and research programmes within the Université Paris Cité and Inserm.

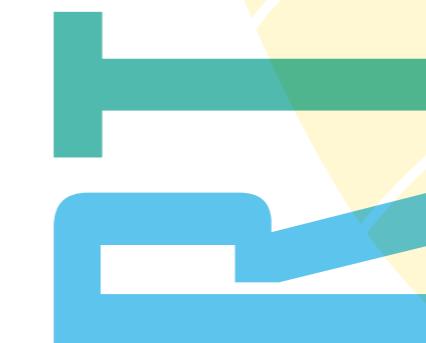
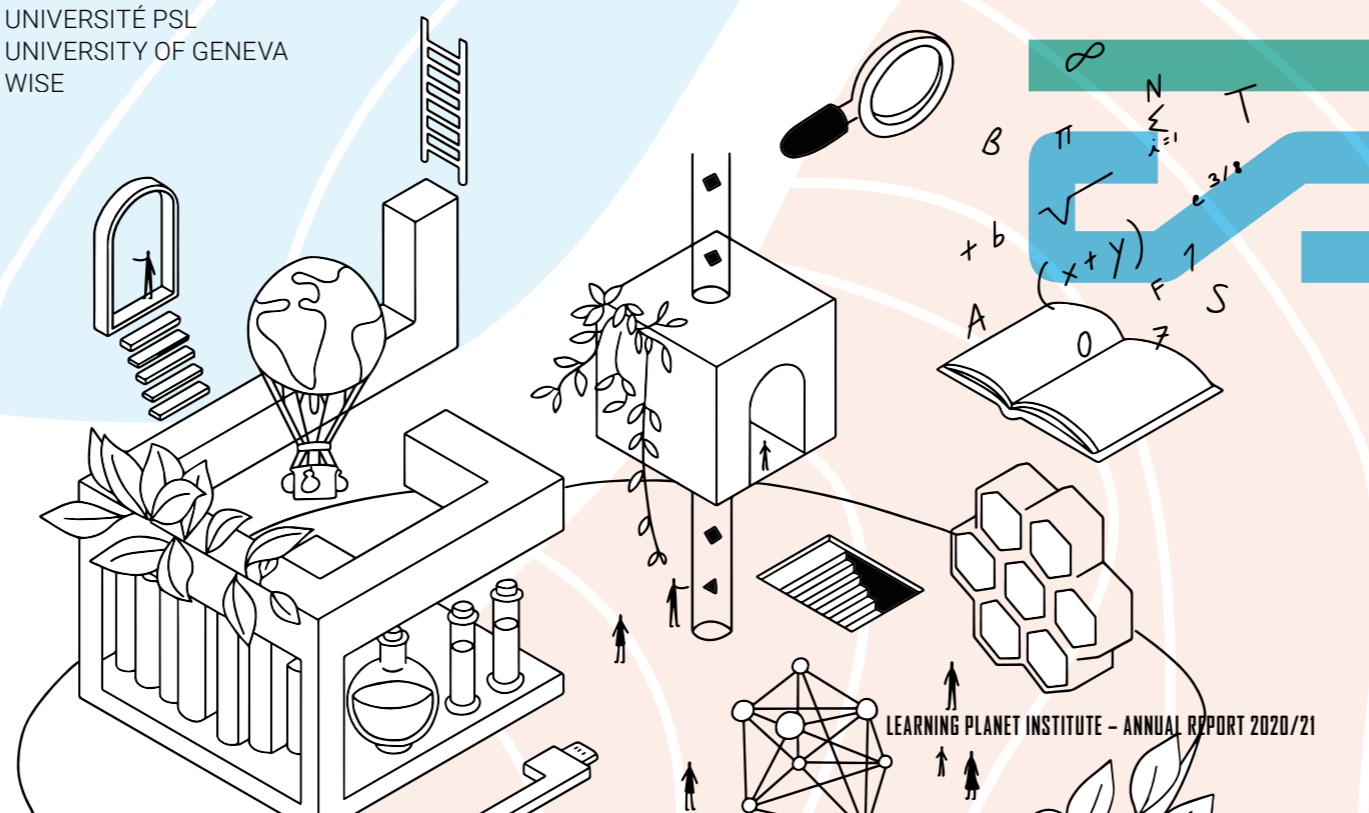


We receive the support of:

- AGENCE FRANÇAISE DE DÉVELOPPEMENT
- AGENCE NATIONAL DE LA RECHERCHE
- AGENCE NATIONAL DE LA RÉNOVATION URBAINE
- AGREENIUM
- ASHOKA
- AXA
- CAISSE DES DÉPÔTS ET CONSIGNATIONS
- CY CERGY PARIS UNIVERSITÉ
- FONDATION DE FRANCE
- FONDATION LA FRANCE S'ENGAGE
- FONDATION L'ORÉAL
- FONDATION MUSTELA
- FONDATION ORANGE
- FONDATION PILEJE
- FONDATION PIERRE BELLON
- FONDATION POUR LA RECHERCHE MÉDICALE
- FONDS DE DOTATION THALES SOLIDARITY
- MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR, DE LA RECHERCHE ET DE L'INNOVATION
- MINISTÈRE DE L'ÉDUCATION NATIONALE ET DE LA JEUNESSE
- HARVARD UNIVERSITY
- HEP EDUCATION
- iGEM FOUNDATION
- INSTITUT NATIONAL DE LA JEUNESSE ET DE L'ÉDUCATION POPULAIRE
- J.P. MORGAN
- LE LAB HEYME
- MSDAVENIR
- ORANGE LABS
- ÎLE DE FRANCE REGION
- LES FACULTÉS DE L'UNIVERSITÉ CATHOLIQUE DE LILLE
- SCIENCES PO
- SECRÉTARIAT GÉNÉRAL POUR LA MODERNISATION DE L'ACTION PUBLIQUE

In collaboration with:

- CHANCE
- FRANCE PARKINSON
- INSTITUT DE RECHERCHE POUR LE DÉVELOPPEMENT
- INRAE
- INRIA
- INSTITUT PASTEUR
- ITMO CANCER
- LABORATOIRE SERVIER
- LA MAISON DE L'APPRENDRE
- LICA
- MAKER'S ASYLUM
- MATTERS
- OPEN SOURCE PHARMA FOUNDATION
- SYNERGIE FAMILY
- TSINGHUA UNIVERSITY
- UNIVERSCIENCE
- UNIVERSITÉ GRENOBLE ALPES
- UNIVERSITÉ PSL
- UNIVERSITY OF GENEVA
- WISE



THE CREATION OF A LEARNING SOCIETY

We believe in the potential of every person. For 15 years, we have been working to support, teach and inspire learners of every age. Our goal is to enable them – by sharing knowledge and mobilising our collective intelligence – to become agents of their lives and of the future society they want to build.

As the challenges facing our society grow increasingly complex and demand an interdisciplinary approach, learning how to learn is more critical than ever to our democracies, our economies, and the sciences.

Join us to support projects for the common good, to help people and organisations adapt to our fast-changing world and to empower them to resolve personal and collective challenges.

Our impact since 2006

We have guided a community of teachers, researchers and students to engage in interdisciplinarity, project-based learning, research, open science, collaboration, entrepreneurship and sustainability issues, all towards the achievement of sustainable development goals.

1,200 projects documented by the community
35,000 students from preschool to high school
120,000 learners

Support the Learning Planet Institute and join an interdisciplinary, multicultural collective of local and international change-makers. Students, teachers, educators, scientists, social entrepreneurs and decision-makers come together to invent new ways and methods to advance our societies.

STILL HAVE QUESTIONS? WANT TO KNOW MORE ABOUT WHAT WE DO? REACH OUT TO US AT:

donation@learningplanetinstitute.org



8 bis rue Charles V • 75004 Paris
communication@learningplanetinstitute.org
learningplanetinstitute.org

