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ART IS A VERB

Art, like the sea, is never still. It moves, unsettles, and provokes us to see differently, to feel more deeply and to imagine new ways of coexisting in a fractured world. When I founded TBA21 more than 20 years ago, it was with the conviction that art is not only about collecting, but about manifesting change. Working with extraordinary artists, I have witnessed how their research, like rivers converging into the sea, weaves new narratives beyond rigid silos of knowledge.

Today, facing ecological collapse, democratic erosion and social fragmentation, the role of artists as visionaries and stewards of imagination has never been more urgent. This is why TBA21 inhabits three homes: in Madrid, at the Thyssen-Bornemisza National Museum; in Jamaica, through the Alligator Head Foundation's conservation and community projects; and in Venice, at Ocean Space, where the Church of San Lorenzo was restored not as a museum, but as a civic space for the ocean, a meeting ground for art, science and collective responsibility.

Our commitments are tangible: from coral reef regeneration and marine research in Jamaica, to our unique role at the International Seabed Authority, to international advocacy where art stands not as ornament but as infrastructure for change.

For me, art has never been only about aesthetics; it is about ethics. It is a civic practice rooted in solidarity, care and radical imagination. To say art is a verb is to believe in its power to move us – into awareness, empathy and action. In this time of planetary crisis, such movement is no longer optional; it is a moral imperative.

Francesca Thyssen-Bornemisza

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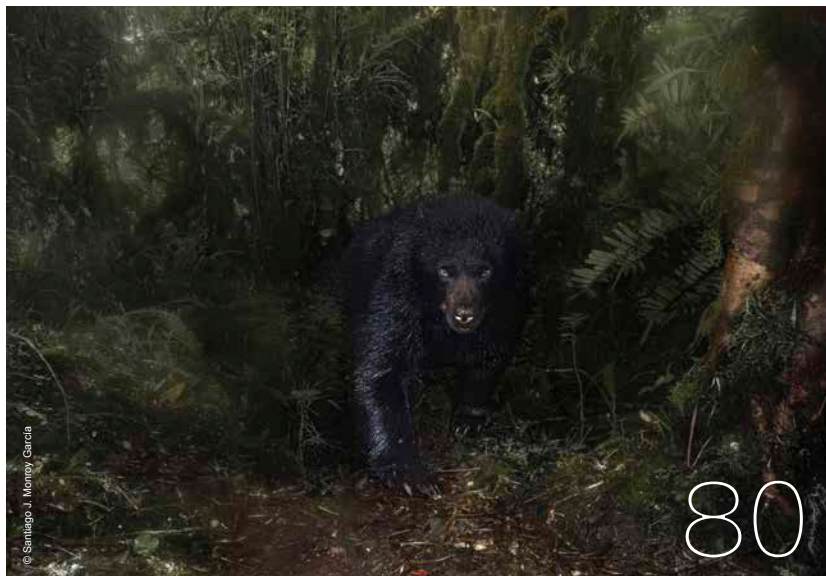


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WELCOME



TO 2050

We are only 25 years away from 2050, which has become a symbolic year for our global targets. We are standing on the verge of societal transformation, while warning signals all over the world are indicating that we are in an age of depletion.

However, there are some green shoots of rebirth. Never before has humanity had access to so much knowledge or so many tools for innovation. Never before have the younger generations been so engaged. In laboratories, in citizen movements, in cities and in the countryside, alternative futures are already being invented.

The issue is not whether we will survive until 2050, but how we will be living by then. Will we have become good citizens who respect the natural world? What values will we have been guided by? What concessions will we have made? What new forms of balance will we have found?

Just around the corner, a new future is taking shape. It will be influenced by the actions we take, individually and collectively. These will depend on how imaginative, bold and insightful we can be, as well as our ability to think ahead, innovate and adapt.

Here, we are giving a platform to the women and men who are already using their expertise, commitment and vision to design this new tomorrow. This special report is not an exercise in futurology, nor is it a catalogue of miracle solutions. Instead, we are inviting you on a journey, to explore the possibilities and consider the paths we could take. Because, although the future is unclear, one thing is certain: it will be what we make it. And the journey starts now.



1 RE-ENGAGING OUR *IMAGINATIONS*

A NEW TOOL FOR CREATING NARRATIVES?

We spend dozens of hours a week staring at a screen, inundated with marketing, our desires shaped by algorithms, using generative AI instead of thinking for ourselves. Are our lives in the West insidiously being formed in the image of Silicon Valley and the FTSE 100, by a dominant narrative that is colonising our imaginations?

Is it “easier to imagine the end of the world than the end of capitalism”? British philosopher Mark Fisher quoted this phrase when describing how we are constrained by the “invisible barrier” of capitalism.¹ This mental block is preventing us from imagining an alternative model for society. According to Fisher and plenty of other defenders of critical thinking, the key intellectual and political challenge of our time is to free our

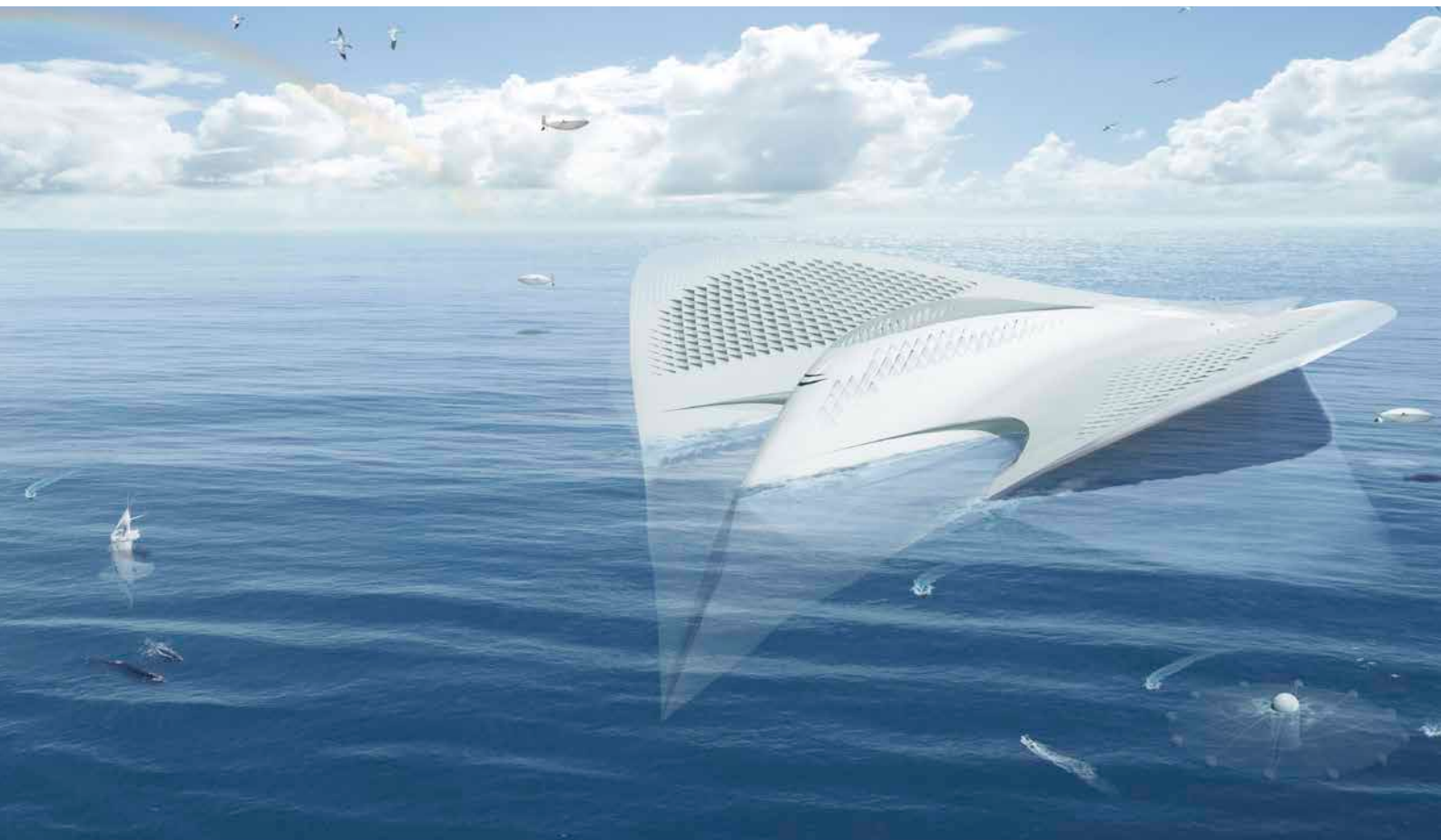
imaginations from this straitjacket. Because how can we transform a system that we cannot even picture any other way?

There is no shortage of scientific reports, green technologies are developing apace and commitments are being outlined in public policies. But change on the scale needed is just not happening fast enough. How do we mobilise eight billion people to address the ecological emergency? What if the key lay in reawakening one of the fundamental human faculties – the imagination?

THE POWER OF STORYTELLING

For thousands of years, our civilisations have been held together by the invisible glue of shared narratives, as noted by Yuval Noah Harari, among others. The Israeli historian and author of worldwide bestseller *Sapiens* says that central to societies is the human

| Project by architect Jacques Rougerie: a floating, biomimetic international oceanographic university called *La Cité des Mériens* (“the city of sea residents”).



¹ Mark Fisher, *Capitalist Realism*, Zero Books, 2009.

² Naomi Klein, *This Changes Everything: Capitalism vs the Climate*, Penguin Books Ltd, 2015.

³ ADEME, *Mobiliser la société à travers le prisme de l'imaginaire* [Mobilising society through the lens of the imagination], 2024.

⁴ According to BDM, the media partner for digital professionals, 2025.

⁵ In an interview by Apolline Guillot on Philonomist, *Brands shape our collective imagination*, 2023.

⁶ Dominique Bourq and Kerry Whiteside, *Vers une démocratie écologique* [Towards an ecological democracy], Seuil, 2010.

⁷ Cynthia Fleury and Antoine Fenoglio, *Ce qui ne peut être volé. Charte du Verstoehlen* [What cannot be stolen: the Verstoehlen Charter], Tracts Gallimard, 2022.



© Créations Jacques Rougerie

capacity to cooperate through shared fictions – “intersubjective reality”. The founding myths that have shaped human societies have now developed into a narrative that is leading to a dead end: the planet is at risk of becoming uninhabitable.

And in the digital age, the imagination factory is working overtime. More than ever, it is crucial to understand the power of stories to help us interpret, and potentially transform, our societies. How can we change the narrative? How can imagination help us face this pressing challenge?

CHANGING OUR VISUALISATIONS

“Something has been damaged in the muscle of our imagination when it comes to thinking about the future”, suggests historian and futurist Mathieu Baudin. “Climate change is a failure of the imagination”, declares author Naomi Klein.² So how can we break away from the dominant narratives? How can we rekindle the creative imagination that philosopher Nietzsche argued for back in the late 19th century, when society was obsessed with the promise of progress?

We can begin by acknowledging the invisible grip that the extractivist and consumerist narrative holds over our perceptions, behaviours and desires. Just one indicator of the state of our society is the fact that many of us know the different big brand slogans better than we do bird calls, highlights Jules Colé in his report for ADEME (the French Agency for Ecological Transition).³ Investment in marketing far outstrips investment in the circular economy. Ever since Guy Debord’s “society of the spectacle”, many other philosophers and sociologists have warned us about the imagination deficit, which is even more pronounced today with the boom in sectors such as video gaming (there are now over three billion registered gamers).⁴ “It’s first and foremost brands which shape our collective imagination”, comments essayist Raphaël Llorca.⁵ And this extends to the most unlikely corners of our psyche and the world.

How can we create alternative narratives and become “imagineers”, helping to shape new collective visualisations that focus on our relationships with the living world and address global challenges? Could this individual and collective recalibration give rise to a new social contract?

DREAMING UP THE FUTURE

Daniel Kaplan, a researcher and co-founder of the worldwide Plurality University Network, has identified two major paradigms of the future that could slow transition efforts: overcoming limits (technoscience) and embracing limits (ecology). It is within the second trend that fresh perspectives are emerging.

The future is already being built. Architects are dreaming up cities inspired by, and alive with, plants (Luc Schuiten) and cities that float on the sea (Jacques Rougerie). There is an upsurge in futures studies, as well as future observatories, alliances and collectives, immersive workshops, citizens’ assemblies, transition pilot projects and more. Some are still at the experimental stage, while others are being implemented and are already shaking up a society in need of a mindset change. They are creating fertile ground and nurturing the first shoots of alternative, co-designed, generally desirable societal models that are better aligned with the challenges of both mitigation and adaptation.

Powering this future-building are creative narratives. Who is producing them? The ADEME study identifies 13 categories of imagineers with the potential to influence our collective ideas. Academics and artists, content creators and politicians, scientists and citizens can all play a vital role in different segments of society.

The visionaries among them are paving the way for new global narratives and identifying fault lines, like the shift in our relationship to time and space inherent in the postmodern experience of a finite planet. “Environmental problems are making us reconnect with the biosphere, which has become a closed, finite world, where things take a long time to happen,” according to Dominique Bourq and Kerry Whiteside.⁶ Philosopher and psychoanalyst Cynthia Fleury has devised a new global social paradigm in the Verstoehlen Charter, which revolves around the concept of care.⁷ Other theorists, such as David Abram, Bruno Latour, Michel Serres, Elisabeth Kolbert, Baptiste Morizot and Vinciane Despret, have described a series of shifts that signal a new way of relating to the living world.

Artists also play a crucial role, by creating emotionally charged works that can communicate new worlds and even spark civilisational

change. Richard Powers visualises a symbiosis between humans and trees in *The Overstory*, Alain Damasio has invented beings called “furtives”, which digest living things, Laure Limongi has described new hybrid languages with cetaceans and crustaceans, and Tomás Saraceno has created highly sensitive spider webs. “Artists are cultural leaders; they have the magical power to sow seeds in the imagination,” explains Magali Payen of Imagine 2050.

IMAGINING RECONNECTION INSTEAD OF CATASTROPHE

“Must we wait for disaster before we question what we’re doing?” asked one of the participants in a research project run by Port-Cros National Park in 2019. After assessing the risks of sea level rise (one metre by 2050) and wildfires, along with the growing impact of mass tourism, around 60 residents of the French island of Porquerolles in the Mediterranean visualised the future of their home. Under the guidance of CAP 2050 coordinator Charlotte Michel, they came up with three scenarios: a bunker island, a high-tech biotechnology laboratory and an adaptation-based transition. Their visualisations have already prompted on-the-ground action, including the introduction of a mobile sawmill, a community oil mill, a herd of donkeys for fighting wildfires, and citizen observatories along the coast.

This model of coastal resilience, designed with the future in mind, could provide inspiration for other islands that are vulnerable to environmental challenges.

In a similar vein at the Green Shift Festival 2025, organised by the Prince Albert II of Monaco Foundation, participants imagined a 2050 where today’s crises had become positive turning points. The stories built on ideas of connection (recognising the rights of the living world in the constitution, a global citizen movement to ban pesticides, etc) give us grounds for hope and reasons to act now.

WHEN WILL THE TURNING POINT COME?

It remains to be seen at what point in time the new narratives will redefine the terms of the social and global contract. The ADEME report emphasises that, “Only when a critical mass of citizens embrace narratives that are aligned with global challenges can we hope to see society reach a turning point”. As sociologist Erwan Lecœur explains, “Cultural battles always come before political battles, which is why it is so important to use culture and the imagination as a lever if we want to trigger ecological transformation within our societies.” The year 2050 starts with our vision, then takes shape through stories that inspire us to take action.

65%

of participants recognise that fiction can be helpful in raising environmental awareness

(Source: *Des Récits et des Actes* [Stories and action] study, Place to B/ADEME/BVA, 2022)

93%

of the French public questions the current model of consumption

(Source: *Barometer of Responsible Consumption*, GreenFlex/ADEME, cited in the report *Mobiliser la société à travers le prisme de l'imaginaire*, ADEME, 2024)



Historian and futurist **Mathieu Baudin** is exploring future pathways. He is the director of the Institute of Desirable Futures, where he sits amid a cabinet of curiosities that includes a backpack made from mushroom leather, a “doxa room” where negative words are trapped forever, a “sentient translator” and an augmented reality “plantoid”. Using a mixture of philosophy of action and functional poetry, he is planning the civilisational transformation we need. His institute has already provided training for 2,000 people (“positive conspirators”), who have started to change the world.

FACING THE AUTUMN OF OUR CIVILISATION WITH POETIC ANTICIPATION

Futures studies was established as a discipline in the 1950s. How do you fit in with that school of thought?

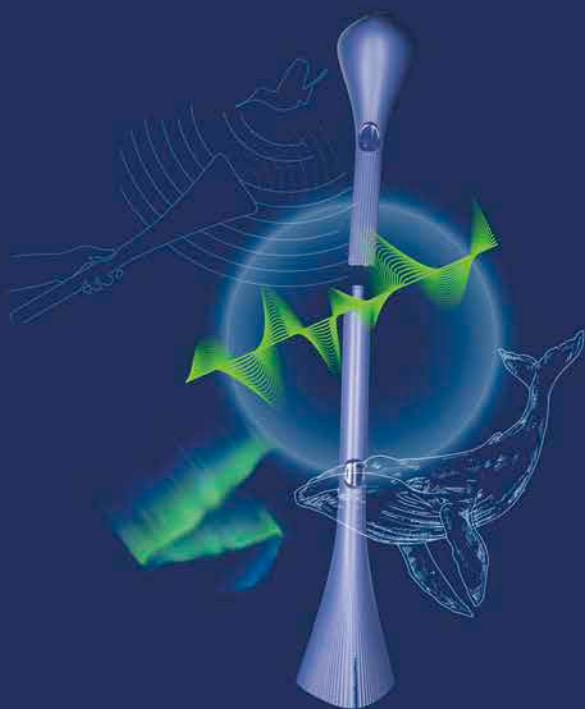
I'm following in the footsteps of Gaston Berger and his philosophy of action. Futures studies originated mainly in the United States and in France. The discipline emerged in the context of resilience after the Second World War, when a vision was needed for reconstruction. Gaston Berger developed *la prospective* in France. Meanwhile, in the United States, probability mathematicians at the RAND Corporation were establishing “foresight” as a method of demonstrating the potential and percentage probability of events in order to inform decision-makers.

I'm more drawn to Berger's philosophical approach, because the object of study is not really the world, but humans – who are always surprising. To Gaston Berger's philosophy of action, I add a poetic dimension. I talk about desirable futures as “poetry of action”. Berger saw philosophy as the means and action as the end. How I see it, action is still the end but poetry becomes the means; functional poetry, in which beauty serves utility once again, like during the Renaissance.

“We have no lack of solutions; we have a lack of horizons, of people saying where they are going together and why.”

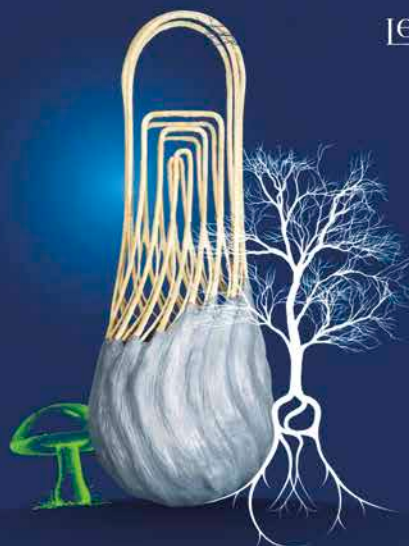
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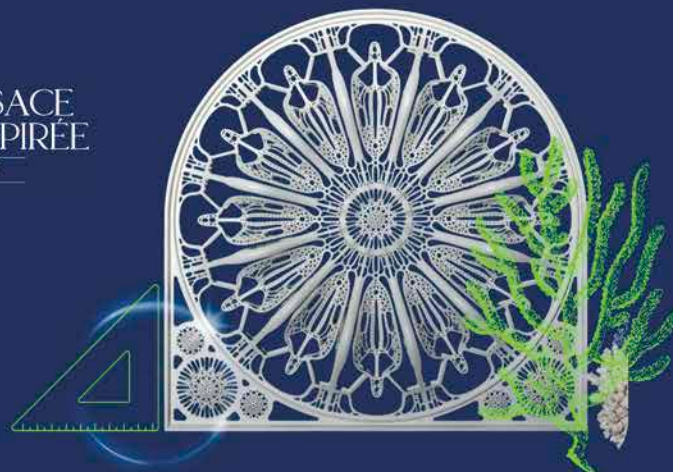
le SAC MAGELLAN

2036



la ROSACE
BIO-INSPIRÉE

2042



How is methodology evolving in futures studies?

There are two game changers. Firstly, there is design fiction, which is now a formalised approach that helps to bring ideas to life. For example, having this bio-inspired rose window from a sacred building of the future in my cabinet of curiosities has a powerful effect on the imagination. It's only waiting for you and me to make it real.

The second game changer is obviously AI. In futures studies, it's no surprise – we were completely expecting it and knew it would change everything. But the surprising thing is that it launched in December 2022 when it hadn't been expected until 2030.

We're currently treading a path between horror and fascination. We're developing a FocusLab on AI at our institute, adopting the view that it could bring out the best in us. It could be the tool we were lacking. Joël de Rosnay wrote *Le Macroscopie* in 1975, in which he observed that, without external tools, humans are unable to manage their self-importance. Perhaps we need something greater than ourselves – not a god, but a transcendent force that draws on the finest traditional wisdom of all peoples to enlighten us.

I really like how Microsoft call it an AI “copilot” to assist us. It suggests the prospect of being helped as a human to move towards a new threshold of civilisation.

You say that we're now in the autumn of our civilisation, on the cusp of renewal. What do we need to leave behind to bring about this civilisational change?

There are so many things to leave behind. For a start, there's oil. It may have been a brilliant idea in the 19th century for a population of 400 million, but not for 9 billion. In 100 years, people will ask, “*Didn't you notice that the sun shone everywhere? That 20 minutes of sunlight could power the human economy for a year?*” Oil is like slavery – an appalling idea that should have been done away with early on.

That's where we are now. We're practising slavery on nature. We've become accustomed to having it at our disposal – infinite, abundant and unaffected by the pollution we inflict on it. That's a fundamental error. We are nature, and pollution returns to our bodies.

Perhaps our reawakening will involve repositioning ourselves within the biosphere, no longer at the centre as owners and possessors, but in symbiosis with the living world. As Hubert Reeves summed up so perfectly, “We're at war with nature. If we win, we're lost”.

As we reconsider our relationship with the biosphere, we must also reconsider the value of natural resources. When a dead tree is worth more to the economy than a living tree, something has clearly gone awry. Non-monetary values will emerge – “confidence ratings” perhaps – that will become the true indicators of wealth. Our present system will be abandoned. Currently, GDP increases when there's an oil spill, because it creates employment in decontamination. We'll have new indicators to measure the state of the world in future, so we can achieve a new balance.

Why is 2050 an appropriate year to look ahead to?

We're looking at the future using “uchronia”. Utopia is a place that doesn't (yet) exist; uchronia is a time that doesn't (yet) exist. The idea of utopia claimed a lot of victims in the 20th century. Uchronia is brand new – nobody has died because of it.

By visiting 2050, as we did during the Green Shift Festival, we can show the consequences of current choices. We're taking the time to detect weak signals about the future. With future uchronia, we're forced to see the impact because “we're there”. The challenge becomes: how did we get there?

By talking about the factors that led there in the past tense, the narrative becomes a programme of action. When we bring ourselves back to 2025, we create a strategic focus featuring steps towards a desirable horizon. We have no lack of solutions; we have a lack of horizons, of people saying where they are going together and why.

2050 is an ideal timescale: far enough away to imagine things being different (given that it takes 20 years for a change of direction in the EU), but close enough for all those involved to visualise the consequences of their decisions, or lack of. The year 2100 would be “not my problem, I’ll be long gone”. Whereas 2050 is only the next generation.

What’s your stance on “collapsology”?

The collapsologists are right; we’re looking at the same figures. Having said that, it’s a question of choice – and I’ve chosen the path of vitality. My perspective as a historian has a lot to do with that choice. Chaos is something we have to live through, but we can choose how much energy we invest in it.

The Renaissance was a traumatic era for those who lived through it. It didn’t feel like a time of rebirth for them! They were experiencing a polycrisis: the Mediterranean was no longer the centre of the world, a new continent was being discovered, the world was riddled with religious wars, one third of the German population was being wiped out, while on the other side of the Atlantic genocide was being committed against Native Americans.

Right now, we’re a bit like the men and women of the Renaissance: we feel like we’re living in a time of collapse, and rightly so. But, because it’s much more than a collapse, we must put our heart and soul into creating a better world. I like to repeat this apocryphal quote: “It’s too late to be a pessimist”. If all you feel is despair, you’re stuck. You have to decide how to pull yourself through.

The way out of collapsology is action. And the good news is, by “beautiful coincidence”, as anthropologist Jason Hickel says, “what we need to do to survive is the same as what we need to do to have better lives”.



© Philippe Filleul/PA2



HACKING THE DOMINANT NARRATIVES



Yasmina Auburtin-Mezaoui is a specialist in new narratives and collective imagination. Drawing on 25 years of experience in the media and in mobilising community action in support of the ecological transition, she is sharing her vision of transformative narratives.

Yasmina is the executive producer of *Imagine 2050*, a MOOC⁸ launched in 2024. She has also been an editorial advisor for the *On Est Prêt* [We're Ready] movement and a consultant on French popular TV drama *Plus Belle La Vie*. Her approach revolves around “subliminal education”: replacing the abundance of material things with an abundance of connections by injecting new perspectives into cultural content. Her motto is “Let’s explore the Planet Way of Life!”.

⁸ A MOOC (Massive Open Online Course) is a distance learning programme designed for unlimited numbers of students and mostly free, open access via the Web.

What is unique about the Imagine 2050 course you’ve developed?

Yes, it’s an online course, but it’s a living, breathing, sensory one. It features video, sound, games, colour, humour and poetry – everything I felt was missing from online courses that are generally boring, lifeless and too academic. With ours, you’re learning with your heart, your body and your intuition at the same time. And that makes all the difference.

Why did you choose to use storytelling rather than scientific data to raise awareness about the challenges for 2050? What is unique about the power of the imagination to transform societies?

Because you don’t get up in the morning on the basis of an IPCC report. You take action because of a story you believe in, a future that calls to you. Stories switch us on emotionally, nurture our inner compass. Facts might inform people, but storytelling transforms them. And as long as we keep describing the world in terms of performance, linear progress and individual merit, we’re not going to move forward.



“You don’t get up in the morning on the basis of an IPCC report. You take action because of a story you believe in, a future that calls to you.”



The Green Shift Festival 2025 in Monaco (top) and the design fiction workshop dedicated to professionals in the cultural sector in the Principality (right). The launch of online course Imagine 2050 at the Paris Climate Academy in 2024 (above).



module 01

L'humain est histoire-s

module 03

Faire société autrement
vers un Planet Way of Life

module 02

Imaginaires dominants,
une course à l'extinction

module 04

Activons nos super pouvoirs !

You demonstrate how our dominant “stories” (capitalism, individualism and techno-solutionism) shape reality. How does a narrative become powerful enough to reshape a whole society?

When it becomes invisible. A narrative becomes dominant once nobody questions it anymore, because it appears everywhere: in adverts, in TV series, in weather forecasts, in running apps. Capitalism is not just an economic system; it's a Netflix series. To create alternative realities, we first need to hack the collective software.

In the course, you state that “changing the story” is the key to transformation. In practical terms, how does this shift from one narrative to another happen?

It can't be imposed, it has to soak in. It's what I call “subliminal education”: putting ideas across without being militant about it. Telling stories that make people crave the simple life, like they'd crave a well-cooked meal. The tools we can use for this include fiction, festivals, algorithms, shortform and unlikely alliances. And, above all, joy. We won't change anything by continuing to terrify people.

Working on 2050 involves imagining the world in 25 years' time. What practical steps do you take to avoid predictions entering the realm of science fiction or wishful thinking?

We stick closely to the subject of Earth's physical limits. Studying the future is not an exercise in divination – it's exploring the balance between constraints and desires. We look at plausible forking paths, not out-of-touch utopias. We recommend always bringing it back to the framework of Doughnut Economics,⁹ because it explains the dual boundaries so effectively: the social foundation and the ecological ceiling. It's my north star. If a scenario purports to be an environmental solution but extends outside the doughnut – for example, because it generates too much inequality or consumes too many resources – we rule it out!

| The Imagine 2050 online course has already trained more than 19,000 professionals.

⁹ Kate Raworth, *Doughnut Economics: Seven Ways to Think Like a 21st-Century Economist*, Random House, 2017.

We also need to be aware of the desirability bias. Just because a future makes us dream doesn't mean we have to present it as a fairy tale. We test it, turn it inside out, run it through worst-case scenarios to see how well a top-down way out of the crisis can hold up. We embrace uncertainty, but keep our feet firmly on the ground. The role of stories isn't to send us to sleep, but to wake us up.

Given the planetary boundaries and the climate emergency, isn't there a clash between the long time needed to change mindsets and the urgency to act? How do you manage that time issue?

To be honest, it's not always easy! There's a disconnect in terms of time: we need destination stories that take people on a journey into the long-term, but also small wins – short stories that keep the ball rolling. It's a balancing act between “bringing in a new era” and “achieving something on Monday morning”. Storytelling, like politics, needs tangible milestones where people feel progress is being made.

What underlying narratives did you use to build the learning progression of your online course?

We start by deconstructing: where do our beliefs come from? What is a dominant narrative? Then we explore the margins, the flaws, the counter-narratives and what are generally known as weak signals, but which I call “emerging realities”. And we finish with creative devices such as “backcasting” – a design fiction technique that enables us to imagine desirable futures using radical hypothetical scenarios. What's my theory about change? Everything's already there and we “just” need to open as many people's eyes to it as possible. Everyone who sends messages of any kind could make it their mission to spread stories like positive viruses.

You position yourself as a messenger of new narratives. How can you avoid being prescriptive?

By just telling the story without applying pressure. By presenting possibilities, not templates. The aim is not for everyone to buy into degrowth or permaculture, but for each person to find their own way of living differently. We need to make people want to take ownership of the narrative, not to sign up to it as if it were a programme.

What other key tools and concepts should be included in our “toolbox for the future”?

We could add robustness, as advocated by biologist Olivier Hamant. It's a way of viewing living things and the world that values diversity, redundancy and flexibility. In short, everything that makes us able to withstand shocks without everything breaking. The Prince Albert II of Monaco Foundation and the Principality's Department of Cultural Affairs explored this concept in their recent masterclass for sustainability professionals. Well done to them for running an event exploring a future that's already here. And of course mutual aid, the other law of the jungle that has been well documented by Pablo Servigne.¹⁰

How do we know whether mindsets are really shifting?

We can keep an eye on trending words, changing expressions and emerging formats. But the real sign is when people start to dream differently. When an advert, a TV series or a local election starts to portray a different world without anyone shouting “transition”. It's slow and piecemeal, but that's how change comes.

¹⁰ Pablo Servigne and Gauthier Chapelle, *Mutual Aid: The Other Law of the Jungle*, Polity, 2021.



World-first MOOC in Audiovisual Fiction

A world-first Imagine 2050 online course specialising in Audiovisual Fiction, presented by actor and director Jérémie Rénier, has been designed to breathe new life into audiovisual narratives. With the aim of infusing what it calls the “Planet Way of Life” into audiovisual storytelling, it shares alternatives to conventional drama to create the stories of tomorrow. This innovative course, supported by the Prince Albert II of Monaco Foundation, offers a 90-minute programme for creative film and TV professionals: scriptwriters, directors, production teams and broadcasters.

Magali Payen, the president and founder of Imagine 2050, highlights the challenge: *“This online course represents a crowning achievement for Imagine 2050. It will enable profound transformation to take place among culture and business leaders, which we have been working on for years. We’re hoping it will help to accelerate a shift in our relationship to the world and the emergence of a new vision for society”.*

Young cosmographer **Maxime Blondeau** is part of the resurgence in cosmography, the science or art of representing the features of the universe. This field draws on physical sciences and humanities, Earth sciences and life sciences, data and art. It highlights operational and strategic issues, and raises questions on both a material and a spiritual level.

Cosmography is inherently connected to environmental concerns because the collection of representations transforms our collective awareness by bringing us face to face with the global realities of our time. As a trailblazer in green thinking based on the inseparable link between “technologies” and “places”, Maxime Blondeau has amassed around 200,000 followers on social networks.



COSMOGRAPHY : REINVENTING OUR WORLD NARRATIVES

Can we already visualise the new myths and collective narratives that will shape our relationship with the world of tomorrow? Are the seeds being sown now?

A new paradigm has been emerging since the beginning of the 20th century. Writer Paul Valéry summed it up by saying, “The time of the finite world is beginning”. He meant that the new narrative forming was about our shared space being one of limitations and boundaries, fragility and vulnerability, which was resulting in a new interdependence between events, actions and dreams. Valéry said that all political and economic phenomena would be seen in relation to this important truth, in the form of either obedience or resistance. After the nomadic Palaeolithic and extractivist Neolithic ages, the third era of humanity could be one of harmonious integration into our evolving universe.

How does our generation's technological and spiritual revolution signal the dawn of new representations of the world?

My field is cosmography, the study of the graphic representation of the universe. At the end of the 20th century, environmental awareness coupled with what is referred to as the digital media revolution radically changed how we use images and information to depict the world we live in. As with the emergence of language and the invention of writing and later printing, it has of course already resulted in economic transformations, but also in spiritual, political and religious change. What makes the current revolution unique is that it is coinciding with the end of globalisation – a time of profound conflict between global awareness and local identity. This is heralding a quantum shift in our collective narrative. For the worse, but also for the better, because we could create a collective narrative that could rectify our mistakes and failings. Of which there are many.

Since the dawn of time, all of life has been built on attention to space and time, and we're still evolving.

What could be the cosmographic consequences of this revolution by 2050?

In the worst-case scenario, we disconnect from the real world. We become fully desensitised, we don't adapt to the changes to the climate, the living world and our lands. This leads to conflict and collapse.

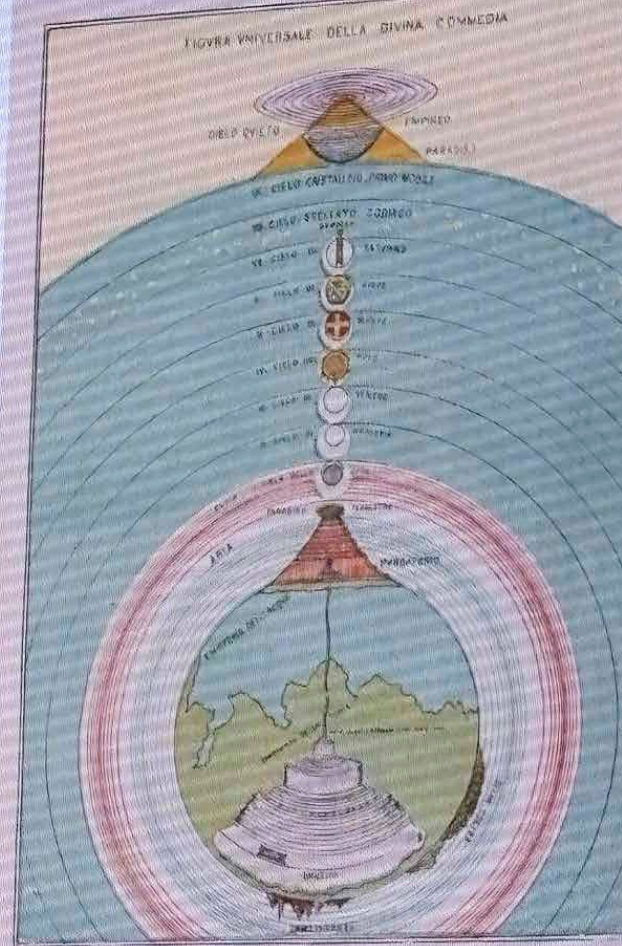
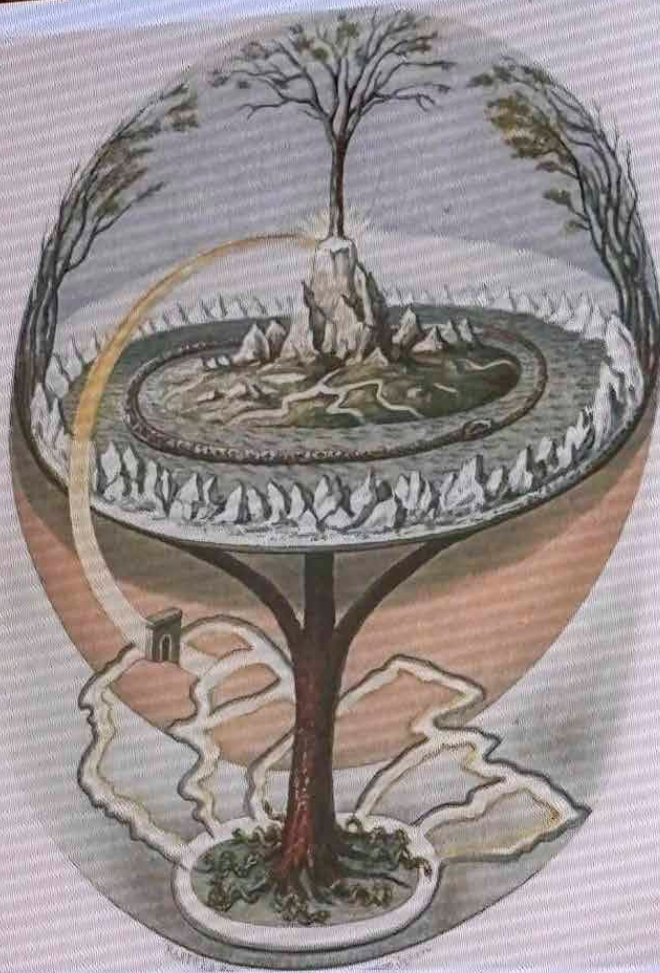
In the best-case scenario, we use the power of collective storytelling provided by new media to reconnect, refocus our attention on what really matters, and reconcile the global and the local in our shared world. In this scenario, we open the way to peace and prosperity.

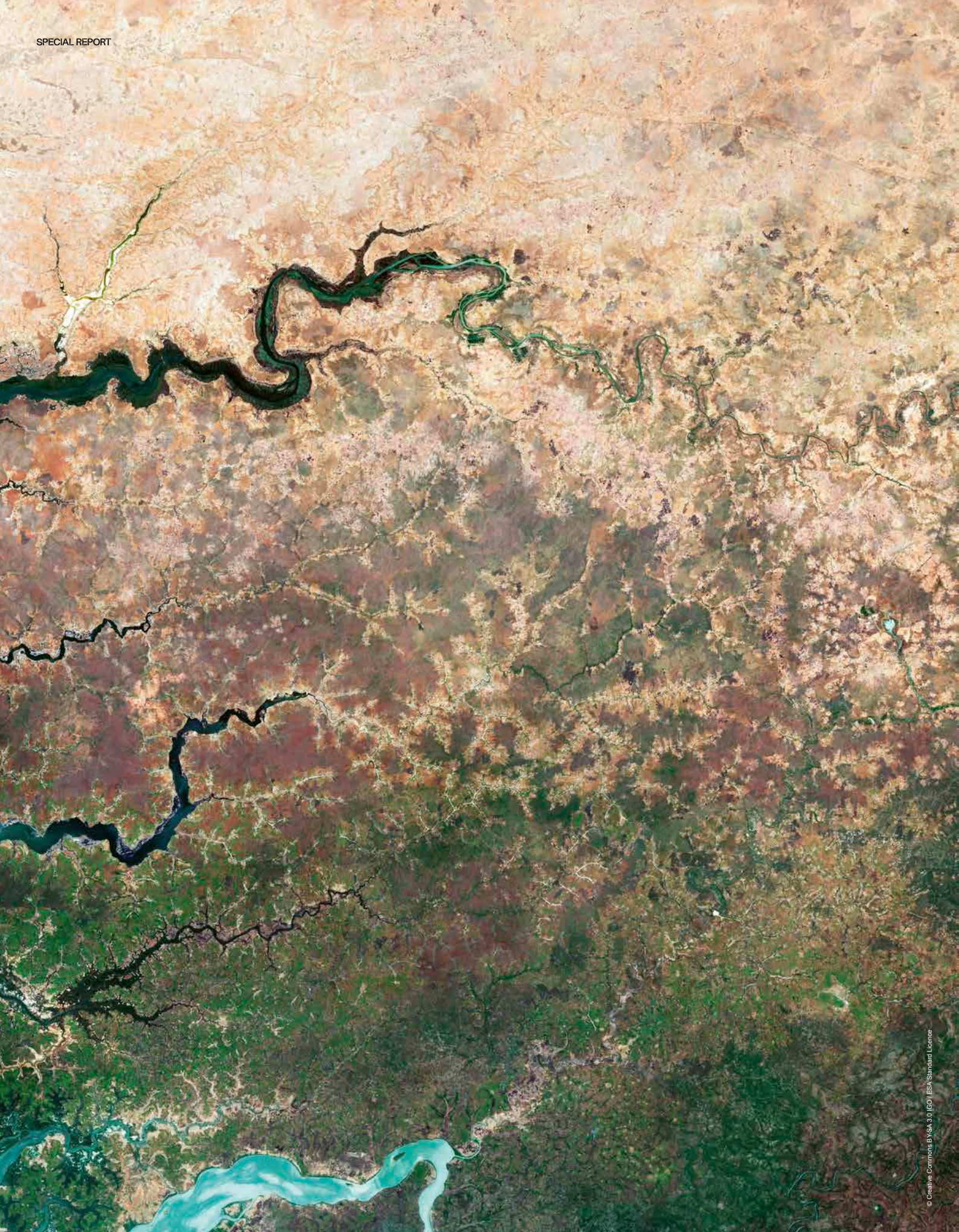
The future is a story that we're all helping to tell. One thing is certain: we have the tools available to rewrite our collective relationship to space and time. Our existence will depend on the choices we make in balancing the environmental, the digital and the geopolitical.

Is technology able to mitigate the polycrisis we're experiencing?

Technology is not in itself good, bad or even neutral. For example, AI applies the values that we programme into it. So the issue is one of governance and the ethical framework for our collective decisions. The first step in making these values explicit is to create spaces for dialogue that bring technology, ecology and democracy together at last.

“What makes the current revolution unique is that it is coinciding with the end of globalisation.”





| Great Green Wall,
Senegal-Gambia

For example, two billion people currently use Google Maps. This makes it the most widely shared collective narrative of the world in human history, beyond all religions. But the form maps take and the geographical data we use is causing geopolitical friction. A map is an expression of sovereignty.

How can we avoid the current “cosmological crisis” resulting in destructive new belief systems?

In my view, the safeguard against destructive new belief systems developing is always the law, above all else. The hierarchy of values governing a society – whether mutually agreed or dictated – shapes our collective vision. Then there are the imaginary worlds of cinema, literature, art and video games. Fiction is undoubtedly the most powerful way of creating collective narratives. So I’m inviting us all to see ourselves as co-creators of the world and to use these tools to flesh out the ideas whose time has come.

| Iceberg A-68,
Southern Ocean



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OLIVIER HAMANT ENVISIONS 2050: TIME FOR AN ERA OF ROBUSTNESS

“

In **2050**, we will live in a much more variable, unpredictable world than today, with environmental instability triggering knock-on effects on our societies, economies and geopolitics. Robustness – when a system remains stable and viable despite fluctuations – will therefore be commonplace. We will have to invent a new civilisation that lives with fluctuations, rather than fights against them.

This means our agricultural landscapes will change significantly, as agroforestry becomes the norm: cultivating biodiversity by planting trees protects crops from adverse weather (hail, drought, etc), enriches the soil with biomass, stimulates symbiotic relationships (especially by replacing the use of fertilisers and pesticides), maintains soil humidity, etc. We will, however, retain certain aspects of intensive agriculture. For example, we will still be able to use machines, but they will have to be the right size to pass between the trees (which will be planted a sufficient distance apart).

We will have achieved a form of decolonisation in our towns and cities, the urban model having colonised the countryside for many years. In 2050, every city will be a “15-minute city” as the village model will have taken over towns and cities.¹¹ Like in agriculture, the key to success for urban areas is diversity: a wide variety of neighbourhoods, each with its own characteristics and independent range of services. These multi-faceted, interconnected communities will make towns and cities internally and externally robust. They will also be much greener than they are today, to benefit from the natural cooling effect of vegetation, but above all, because connecting with nature will once again be essential for culture and education.

¹¹ The 15-minute city, a concept developed by French-Colombian urban architect Carlos Moreno, aims for all essential services to be a 15-minute walk or a 5-minute cycle ride from every resident's home.



With the world around us increasingly showing signs of collapse, biologist **Olivier Hamant**, a plant development specialist and director of the Michel Serres Institute (Lyon), advocates for robustness. His research into mechanisms observed in nature has prompted him to think about building more robust societies by shifting the focus from our obsession with performance.

It will be unthinkable for children to go for more than a week without walking in nature. This will not just be for their well-being; walking in nature will be like a new, bonding connection, almost like a religion (in terms of its root meaning 'to connect'), because the natural world and its fluctuations will have shown us the limits of our human infrastructure. Our sense of wonder when deer ventured into towns during the Covid pandemic was just the trailer for this new age.

Companies and the economy will have completely changed. In a world facing chronic shortages of resources, disruptions in supply and sudden fluctuations, we will have shifted from a goods-based economy to a service economy – a circular economy where the main focus is on local development and on repairing and adapting products, rather than on manufacturing and sales. Competition will be minimal, because in a fluctuating world, cooperation is the only viable solution. Business innovation will no longer be driven by competition, but by the changing world. Companies will no longer participate in competitive calls for projects; they will instead take part in “calls for commons”, where they will share all their innovations to develop common resources (an existing example is the ADEME intermediary vehicles project),¹²

The finance sector will be dominated by insurance, because investing in a company will require the company to demonstrate that it is viable during turbulent times. In 2050, robustness will be an integral part of our culture, not as a dogma, but because our fluctuating world will invite us to take this multi-faceted approach. Because it is the only viable solution. And when we look back at human organisations in 2025, and their constant obsession with performance, they will seem like fossils from another age.

¹² The “Intermediary Vehicles Industry” call for projects is part of the eXtrême Défi programme, which “aims to encourage innovation” and “boost cooperation between various stakeholders” in this specific industry, to produce the intermediary vehicles of the future and their equipment (www.agirpourlatransition.ademe.fr).



“Robustness is when a system remains stable and viable despite fluctuations.”



“This vision of our world in 2050 is not utopian. It already exists today, in 2025.”



“We will have to invent a new civilisation that lives with fluctuations, rather than fights against them.”

In **2050**, engineers will no longer want to create the most advanced technology based on delegating tasks to remote algorithms. Instead, they will develop a range of technologies that aim to make citizens technically independent.

The goal will be to stimulate technological diversity and create technologies that citizens can repair, adapt and upgrade themselves.

We will have finally realised that our ultra-high performance world creates technophobia, because high-performance technology drives out older technologies and alienates citizens from technology.

Conversely, the robust world is pro-technology: new, robust technologies will be appealing but will not eliminate older, equally robust technologies. Citizens will be encouraged to connect with technology because it will empower them. The ultimate goal is to create “tools for conviviality”, as described by Ivan Illich. Many of these technologies will rely on the circular bioeconomy, using biodegradable, compostable photosynthetic carbon. For example, we will no longer make batteries with lithium, but with lignin, an abundant polymer in wood. We will repair them at local Repair Cafés and once their useful life is over they will end up in local compost sites.

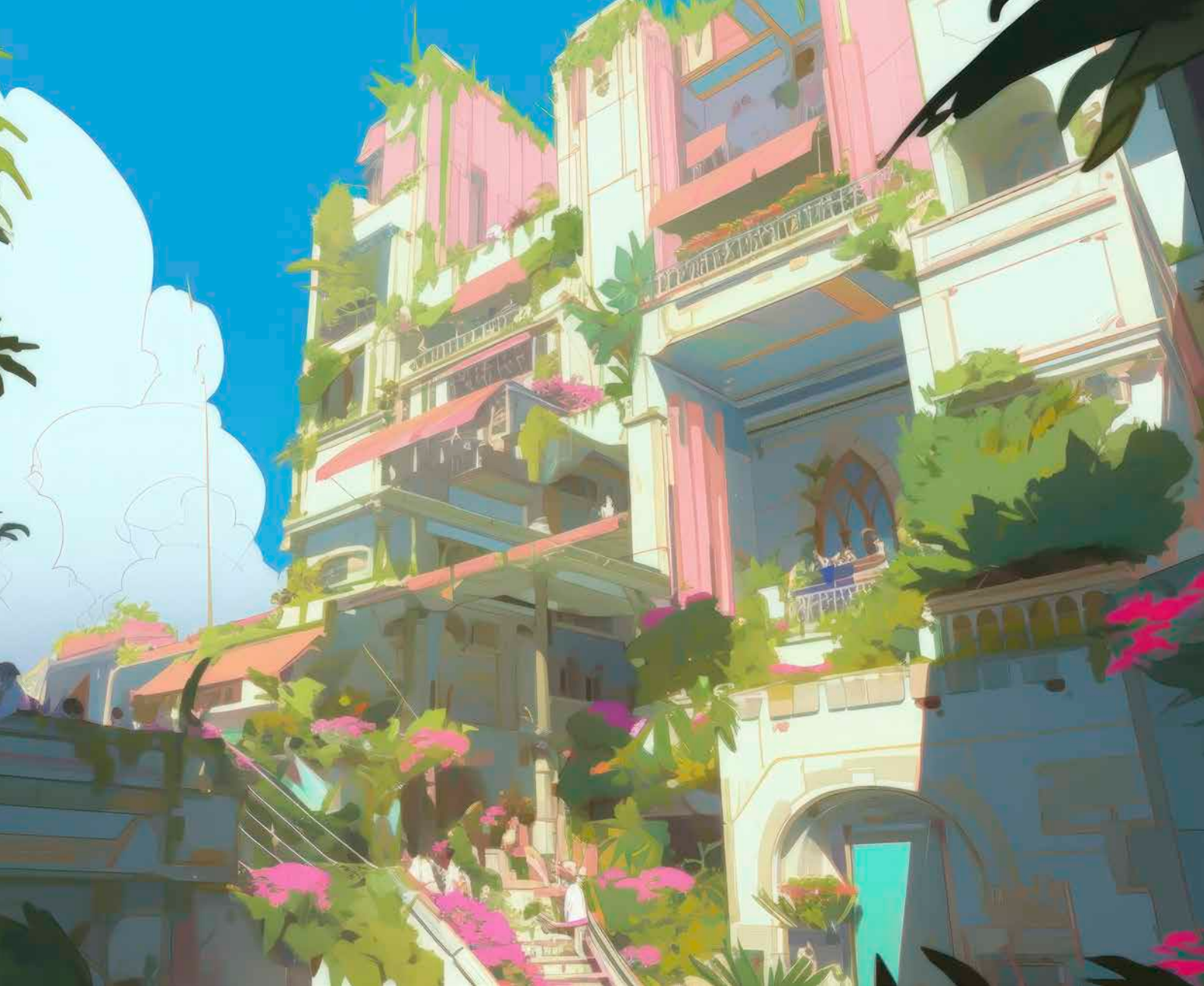
This vision
of our world in

2050 is not utopian. It already exists today, in 2025. We cannot see it because the world of ultra-high performance takes up all the space in the media, the economy and finance. And yet, every time a fluctuation occurs, and as the fluctuations become more intense and more frequent, robust models will demonstrate how remarkably viable they are; models such as agroecology, communal living, full reparability, participatory approaches, citizen’s assemblies and the circular bioeconomy.

A whole range of companies and non-profit organisations are already focusing on robustness: a winegrower (Oé) uses agroecology and 100% returnable bottles, an envelope manufacturer (Pocheco) has invented a new “ecolonomy” model that creates social interactions and has zero environmental impact, an electricity producer (Seaturns) uses a low-tech, robust solution to capture wave energy, a baker (NéoLoco) bakes bread in a solar oven and helps other companies rethink their business models to adapt to energy fluctuations. There are also schools that encourage cooperation rather than competition, where teachers ask questions and rather than providing answers, pupils look for them together. Schools that teach students how to learn.

It is a world in which people understand that cooperation means letting go of individual performance so we can cultivate robustness as a group.

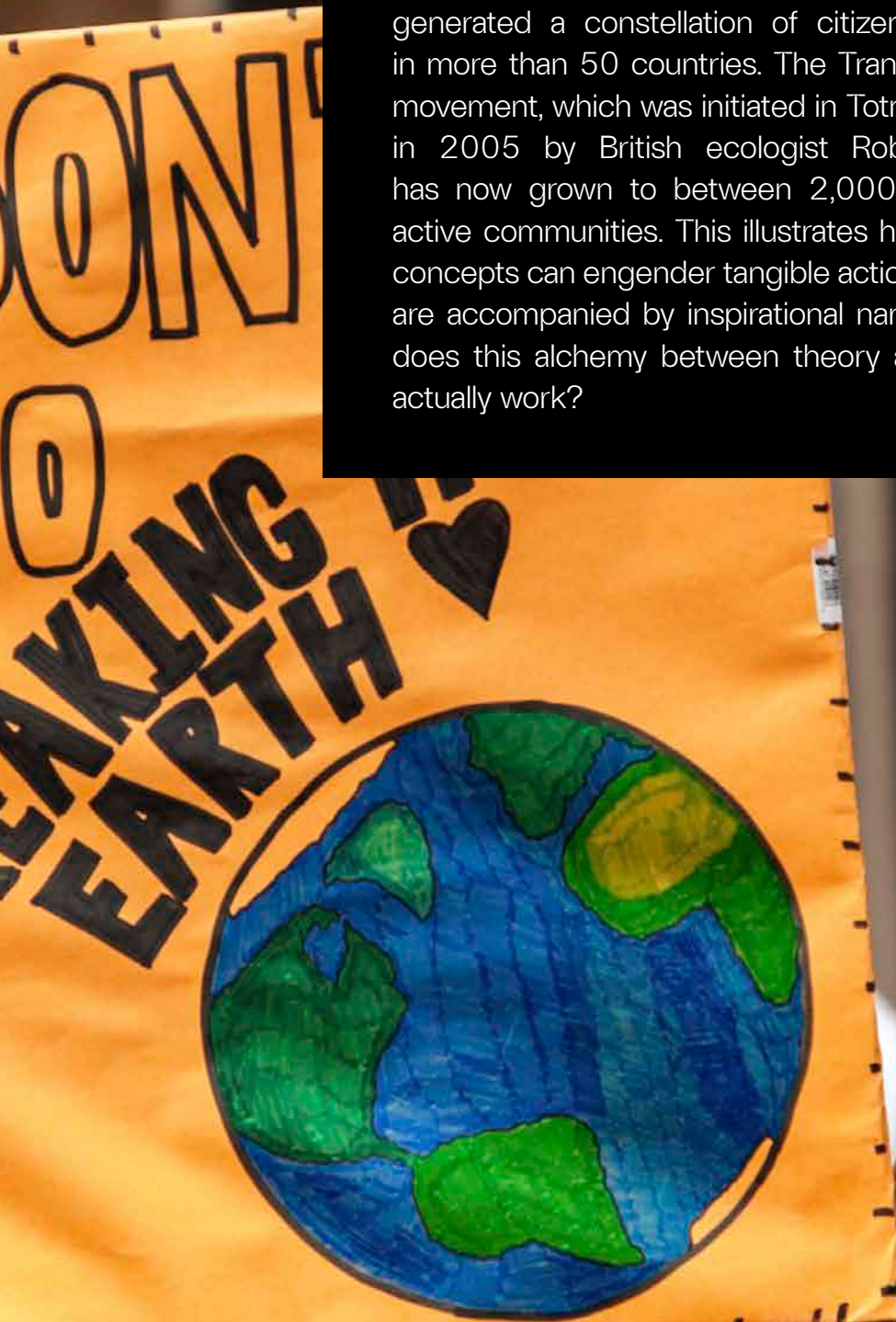
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TAKING ACTION

In 2009, Johan Rockström and his team at the Stockholm Resilience Centre published the planetary boundaries framework, defining nine critical thresholds for maintaining the stability of Earth's biosphere.¹³ Since then, this work has generated a constellation of citizens' initiatives in more than 50 countries. The Transition Towns movement, which was initiated in Totnes, England, in 2005 by British ecologist Rob Hopkins,¹⁴ has now grown to between 2,000 and 3,000 active communities. This illustrates how scientific concepts can engender tangible action when they are accompanied by inspirational narratives. How does this alchemy between theory and practice actually work?



FROM TRANSITION TOWNS TO THE “ECOLONOMY”

Town-based initiatives open up new horizons. In Europe, where the transition movement originated, the municipalities of Ungersheim (Alsace) and Loos-en-Gohelle (Pas-de-Calais) are carrying out several parallel projects to achieve systemic change: ecological restoration of mining wasteland, renewable energy, green belts, bio-construction, organic market gardening, etc. This approach, which relies on community involvement, shows how positive narratives can engender coherent local transformation.

In Fujino, Japan, the transition took shape after the earthquake in 2011 with a local currency, solar workshops, organic crops, etc. Japanese Transition Towns have their own unique identity by incorporating the additional concepts of *tanoshiku* (having fun) and *tsunagaru* (connecting with others).

Transition Towns in Brazil formed a national network at their third forum in São Paulo in February 2016, resulting in another distinctive cultural adaptation of the model. As Transition Network International explains, “In Brazil, the transition is not the same as in Sweden, Japan, Italy or the United States. But the funny thing is, when we get together, we’re all part of the same family”. This unique balance between local adaptation and global affiliation constitutes the essence of the movement.

The new visions for the future are starting to penetrate the private sector too. One example is French company Pochecho. Emmanuel Druon has invested 10 million euros to make his envelope factory energy independent and zero waste. With a living roof that provides a home for 80,000 bees, and a phyto-purification wastewater system, the plant is a model of “*ecolonomy*”. “Our turnover has increased by 20% since we started the transition”, explains Druon, who also advises dozens of other companies. Regeneration success stories like this can help overcome the conventional view that profits are incompatible with a healthy planet.

Of the various initiatives currently taking shape, one project draws inspiration from the Verstohlen Charter, developed by Cynthia Fleury, which contains 10 guiding principles on new ways to live in our world and tackle all the transition issues we face. The town of

Saint-Médard-en-Jalles (France) is carrying out a social experiment based on the charter, with the aim of becoming a “Forest City” and a “caring town”, built on active citizenship. The project brings together academics, designers, caregivers and politicians.

DRIVING TRANSFORMATION

After the initial inspiration, transition initiatives need long-term support to sustain their momentum for change. Through 24 hubs around the world recognised by Transition Network International, they can connect with formal and informal groups, as well as experts. These hubs adapt global approaches to local contexts, while maintaining a coherent transnational narrative.

Changemakers also connect via other networks, such as C40, a global network of mayors to tackle the climate crisis, Alternatiba, a citizens’ climate and social justice movement, and the UNESCO YoU-CAN network, which brings together over 100,000 young people from 184 countries.

Involving the general public in creating narratives helps them take ownership of the issues and generate solutions. New media and futures training are instrumental in that process. Meanwhile, local citizens’ assemblies and collective narrative creation are snowballing. “The Climate Fresk”, an innovative climate education tool created by Cédric Ringenbach, illustrates the transformation potential of such initiatives: to date, 1.5 million people in France have participated in the workshop, which turns IPCC data into a collaborative learning experience. This model has spawned two additional biodiversity and digital “Fresks”, creating an ecosystem of interconnected narrative-generating resources.

Complementary local currencies – of which there are over 80 in France and around 100 in Brazil – are a tangible example of alternative narratives in the everyday economy and show that different local distribution channels are possible.

Third places,¹⁵ Fab Labs and upcycling centres also demonstrate how new collaborative narratives and social innovations are taking shape in society. There are now over 3,000 Fab Labs around the world, forming a network of workshops where citizens can access digital tools to design and create objects. The concept has engendered the Fab City

¹³ Article published in the journal *Nature* (Rockström et al., 2009).

¹⁴ Rob Hopkins is the author of *From What is to What if – Unleashing the Power of Imagination to Create the Future We Want*, Chelsea Green Publishing, 2019.

¹⁵ A citizen-run social space, where a community can meet, assemble, have discussions and share resources, skills and knowledge.

initiative, a global network of 30 cities and urban areas that “aim to become locally self-sufficient and globally connected by 2050”, in the words of the project’s Venezuelan founder, Tomaz Diez, who launched and established the concept in Barcelona in 2014. Low-tech Labs promote accessible, repairable solutions that are “the opposite of Silicon Valley”, explains Corentin de Chatelperron, who distributes simple innovations from his base in Concarneau (Brittany).

A GLOBAL TRANSFORMATION ON THE HORIZON

The transition movement includes initiatives in a wide variety of contexts, from Brazilian favelas to Italian villages to British universities, which shows just how adaptable these transformational narratives can be. Certain areas call themselves Zones to Defend (ZAD), like Notre-Dame-des-Landes (France), which has become a laboratory for post-growth society since the project to build an airport there was abandoned. The 1,650-hectare site now hosts around 100 projects that explore radically different ways of life and are a testbed for experimental narratives.

The result is not fragmentation, but a concentration of diverse projects creatively adapting to local cultural ecosystems. Nevertheless, we need to accelerate transformation to tackle the climate emergency. Narratives are not just cultural devices; they provide us with the cognitive architecture to reshape our vision of what is possible. From Fujino to São Paulo to Totnes, and on every disused plot land in between, a new map of the future is being drawn, region by region, story by story. The challenge is no longer to convince people that change is necessary – our planet’s limits are now clear to be seen – but to cultivate the imagination we need to make change both possible and desirable. As Place to B points out in their 2022 study *Des Récits et des Actes* [Stories and action], we need narratives that inspire joy and hope, but that are also firmly rooted in the reality of our social and environmental situation.

However, the large-scale societal transformation we need requires a systemic approach. The Brazil Climate and Ecological Transformation Investment Platform (BIP), launched by the

Brazilian Government at the end of 2024, aims to match transformational stories with funding partners, since they know that imaginative solutions cannot be realised without appropriate investment infrastructure.

We are on the brink of a global revolution in transition narratives. Drawing on a multitude of local experiments, these narratives are shaping a civilisation that will be able to thrive within the planetary boundaries. As the transformational narratives spread far and wide, they are already showing that, together, we can rewrite our future. We just need to reach the turning point.





Santiago Lefebvre, the founder of ChangeNOW, looks back at the creation of what has now become the largest global event for environmental and social solutions, bringing together 40,000 participants from 140 countries.

Hosted at the Grand Palais (Paris) every spring since 2017, the forum has become a catalyst for practical solutions and unexpected partnerships, a breeding ground for a new era, where ecology, art and social innovation are central to change.

We interviewed the financial specialist turned sustainable solutions architect, who has taken the bold step of leveraging entrepreneurship to drive positive action for the planet.

CREATING AN ECOSYSTEM FOR CHANGE HERE AND NOW

What motivated you to create ChangeNOW, with your background in finance?

I became interested in finance, because I was convinced it was a stepping stone towards entrepreneurship. But when I finished my MBA at INSEAD (2014–2015), I started to meet impact entrepreneurs like Boyan Slat (The Ocean Cleanup) and Josephine Goube (Techfugees). There were very few of them at the time and I said to myself, “That’s the sort of entrepreneur I’d like to be.”

One thing was very clear: in 2015, all the impact entrepreneurs felt very isolated and alone. There was no ecosystem in place yet to help them grow. The initial idea was to create a platform bringing everyone together in one place – innovators, investors, large groups, job candidates, media, public authorities – so they could work together and invent new models.

Which specific approaches did you use?

One of our major advantages was that we were neither from the impact sector, nor from events. So we could really work with a blank canvas to design how to bring the changemakers of our time together.

When we launched the event at Station F, we took tech industry standards and applied them to social and environmental entrepreneurs. We also drew inspiration from TED Talks. We completely rebranded the whole concept of social entrepreneurship to make it much more attractive to play an active part in the social and ecological transition.

How do you facilitate connections and inspiration?

We aim to organise an event that can truly change the world. Being effective at creating connections is therefore key. Given the right context, networking and connections between participants will happen naturally. The layout of the exhibitor stands enables direct interaction between project developers and visitors, without any barriers or intermediaries.

The whole design of the event leaves plenty of space for inspiration, using art, for example. Our intention is to evoke feelings in people to inspire them to take action – emotions are powerful motivators.

And you continue to stand out, don't you?

Yes, we've done things differently and will continue to do things differently. Even the way we organise ChangeNOW is at the cutting edge of sustainable event production, a long way ahead of current standards. We like venturing into new, innovative fields and trying to change the status quo, the way society does things.

Which tools do you think are the most effective to drive transformation today?

First, being creative and showing what a better world might look like. That's why we encourage a holistic approach, which of course includes ecology. But above all, we want to show people how we could live more satisfying lives.

Next, offering a place for people to meet. The common denominator that connects changemakers isn't their position, but the fact they're trying to build the future together. Changing the world relies above all on synergy.

Have you seen tangible results from the eight previous editions of ChangeNOW?

Every year, we draw up an impact report. This year, ChangeNOW generated the equivalent of six months' business for certain project exhibitors. It really is an accelerator for them. Here are a few concrete examples. Neolithe, which fossilises non-recyclable waste to produce construction materials, met Christophe Béchu (then Mayor of Angers and current French Ecological Transition Minister) at an edition of ChangeNOW. The meeting led to investment by the City of Angers that enabled the company to start manufacturing their innovation on an industrial scale. Meanwhile, a partnership between Slovenian start-up PlanetCare and the French Ministry of Ecological Transition resulted in a new law for all washing machines to be fitted with microplastics filters from 2025. As for investors, Swen Blue Ocean, a fantastic private investment fund for ocean restoration, raised its first millions during ChangeNOW a few years ago. Today, it's worth 300 million euros.

Every year, there are hundreds of stories like these. And impacts of other kinds – like the people who come to ChangeNOW and, as a result, decide to join the industry, change career or sign up for training.





ChangeNOW is an ecosystem where 1,000 environmental solutions meet 1,200 investors every year, as well as political policymakers and local stakeholders.

*“Changing the world relies
above all on synergy.”*



Photos © ChangeNOW



Have you observed any new trends in solutions?

There are major trends in three sectors. First of all, the circular economy remains an essential system for tackling the challenges associated with climate change and planetary boundaries. It is estimated that 40% of climate issues could be managed with a robust circular economy. It would also help us stay within planetary boundaries by having a positive impact on resources (humanity currently consumes the equivalent of more than two planets per year). Biodiversity is next. A few years ago, it was difficult to find any biodiversity restoration projects. Today, biodiversity is one of the most dynamic sectors. Finally, the agricultural transition is another essential part of the efforts to transform our world, namely in the form of regenerative agriculture.

When we talk about innovation, we usually think of technological progress first, but, for you, innovation has a much broader meaning, doesn't it?

Yes, for us, innovation is anything that can change the status quo. Sometimes that entails technology, but more often it involves new processes, narratives or economic theories. For example, Kate Raworth's work on Doughnut Economics is an innovation in economic thought. We created Films for Change, a forum for stakeholders from the film and TV industry, to champion productions addressing the transition. The transition rests on seismic shifts in three key areas: energy, agriculture and culture. Our understanding of the issues relating to the social and ecological transition must not come just from science, but from culture too. I don't believe in having only one new narrative about the transition, but instead in creating a multitude of different stories about it. In the end, that's how a culture evolves.

How does cultural diversity help new solutions to be envisioned?

When changemakers from 140 countries get together, we learn a lot from their multicultural interactions. This motivates us to make sure that ChangeNOW continues to represent diversity within the transition. This year we're going one step further by launching the first ChangeNOW Hubs: licensed local events in Tunis, São Paulo and Bangalore. We're taking the values and momentum of ChangeNOW to local ecosystems, with the same determination to fuel action.

When you imagine 2050, what do you see?

We're always firmly rooted in the present. That's what "change now" is all about! We're totally focused on taking action now, but we remain aware of the challenges that the future will bring. We recently learned that global temperatures will rise by more than 1.5°C. But we mustn't give up. If we can't meet this target, then the next target will be 1.51°C, then 1.52°C, etc. The most important thing is to always do our best to respond to global challenges using the best possible solutions. Our role is to continue to take action so that humanity can tackle these problems as effectively as possible.

CITIZENS, LET'S CHANGE THE WORLD



Hélène Binet is communications and editorial director at non-profit makesense, and a pioneer in creating new environmental narratives. For over 10 years, she has been developing practical ways of inspiring citizens to take action for a desirable future. Through projects such as their website *Chiche*, and Factory of our Times (a new initiative at Paris cultural centre La Gaîté Lyrique), she is mapping out a pragmatic approach to achieving ecological and social transition by 2050.

When you think about 2050, what is your methodological approach to building a desirable future or futures?

I'm not sure we should refer to a methodological approach with a 10-point action plan when dreaming about the future; perhaps instead we should try to let go of now as much as possible so we can (re)engage our ability to imagine far ahead. In a world in crisis, we need to try and break out of the straitjacket of the present so we can immerse ourselves in a desirable future. In other words, we need to step away from the current problems, give ourselves some space, define the ideal destination we want to reach, then work out the path to get there. It's easier to overcome mental blocks and obstacles when you take a long view.

I'm not a futurist; I don't have a precise methodology. I'm more into experimentation. I like approaches that appeal to our artistic side and I like to test these out wherever possible. At makesense, we've been experimenting with writing the future intuitively as a collaborative "exquisite corpse" exercise.¹⁶ We also play at visiting 2050, talking about the future in the present tense and explaining how we got there, which gives people the strength to continue their action. Sometimes we also create utopian drawings or collages. I really like the practice of 81-year-old Belgian architect Luc Schuiten, who, in the same vein, for the past 30 years, has been designing imaginary towns that he gives poetic names to. "*The things I draw will never exist as such. I want to show that other paths are possible, and to empower the imagination*", he explains. Bringing utopias to life is what we're passionate about at makesense.

¹⁶ Exquisite corpse (*cadavre exquis*) is a collaborative drawing or writing game invented by the surrealists, involving chance and the free association of ideas.

“We need to step away from the current problems, define the ideal destination we want to reach, then work out the path to get there.”





How do you implement that vision in your projects?

At makesense, we've established an organisational compass that guides us in all we do. One of our five priorities relates specifically to nurturing and cultivating desirable imaginary worlds. We do that in lots of different ways. Firstly, through our publications. We give widespread visibility to initiatives that are doing the world good, but often pass beneath mainstream media's radar. The aim is to show that utopias don't have to be utopian and that other imagined worlds are possible. We also think out of the box with our event design, we tell stories and invite guest artists and audience participation. We make sure our way of working sparks joy on a daily basis, not as a gimmick, but as a political tool. *"If I can't dance, I don't want to be part of your revolution"*, goes the paraphrased saying by feminist anarchist Emma Goldman from many years ago.¹⁷ It's important that our utopias and our methods are joyous and appealing. It helps give our ideas momentum.

You champion the approach of taking small steps to prepare for a great leap. How does that philosophy apply to the path to 2050?

We're not naive, or not anymore. We now know that individual actions are not enough to tip the world over into ecological and social transition. Having said that, if people haven't tried out changes themselves, had first-hand experience, it's difficult for changes to be advocated for more widely. Goethe is quoted as saying: *"Until one is committed, there is hesitancy, the chance to draw back, always ineffectiveness [...] the moment one definitely commits oneself, then Providence moves too"*. Action has magical power, mainly because it brings us optimism, and this is as applicable to 2025 as it is to 2050.

¹⁷ Vivian Gornick, *Emma Goldman: Revolution as a Way of Life*, Yale University Press, 2013.



Makesense's website *Chiche* encapsulates this approach. How can it help to bring this future about?

Our website has three main roles: to help readers understand the environmental and social challenges, to draw inspiration from the initiatives addressing them, and to find ways to take practical action, whether individually or collectively. At the end of every article, there are suggested ways of taking action. We think that's crucial. The news tends to leave us in a state of shock, whereas with *Chiche* we want to give everyone a way of being part of the transition. In our mission statement, we point out that some people in society look at how the world is and ask, why? While others imagine the world as it should be and ask, why not? *Chiche* has been created for those people.

Collective wisdom seems to be central to your work. Can you give us some examples of collective "small steps"?

Most of the actions we suggest are collective, because being part of a group can have a positive effect on individuals, providing them with allies and support for all their efforts. For example, we encourage young people to do things like talk to local retailers about switching to reusable packaging, organise "disco soups" (big community soup dinners made from surplus market produce) or play sport with refugees. There are about a hundred collective practical actions listed on our website; you just need to take your pick.

How do you engage people's emotions in what you do?

The head-heart-body model is our trademark at makesense. The emotional aspect is important because we look after the people we engage with. There's a big emphasis on listening in all our programmes, as well as on celebration and joy. Taking environmental action doesn't mean wearing a hairshirt; it means having fun and connecting with others and our emotions.

What indications do you see that this approach could work on the scale needed for 2050?

We've been measuring the impact of our work for several years now. In 2024, we reached over 2.6 million people with our content, messaging and listings through our website *Chiche* and our platform *Jobs that makesense*. 24,500 people have tried our programmes in schools, community education centres and businesses, in both the public and private sector. What matters most to us is how we share our guiding principles. The ultimate goal is to empower everyone to take action, become a catalyst for change, and regain control of events. This is important in a society where people are becoming more resigned and withdrawn by the day. Our work isn't changing the world but it's contributing in its own way to the cultural shift needed for the transition. We keep telling ourselves that even if we're just one drop of water, we may as well be the one that makes the cup run over!

***“The worst can be avoided.
Let's be the ones who can say,
at least we tried.”***

GET FLUENT IN NEW NARRATIVES

A small selection
of the many inspiring
resources on offer.

ATTEND



- Visit the **Green Shift Festival** organised by the Prince Albert II of Monaco Foundation
- Take part in a **Deep Time Walk**, which retraces the Earth's history, step by step
- Sign up to **Epop&**, an ongoing programme of free and open-access events by the Institute of Desirable Futures (in French)

READ



- Enjoy the optimism of **Rob Hopkins**, co-founder of the international Transition Network movement, in his books, *How to Fall in Love with the Future*, Chelsea Green Publishing UK, 2025, and *From What Is to What If*, Chelsea Green Publishing UK, 2019 (in English; both also available as audiobooks)
- Learn some new brand words from **Jeanne Henin's** dictionary, *Les Mots qu'il nous faut* [The words we need], La Mer Salée, 2024 (in French)
- Shift paradigm with **Olivier Hamant's** *Antidote to the cult of performance: Robustness from nature*, Éditions Gallimard, 2024 (in English)
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- All the fascinating episodes of **Mathieu Baudin's** podcast, *Dîtes à l'avenir que nous arrivons* [Tell the future we're coming], in partnership with Canal+ researchers (in French)



‘A SUMMER AT SEA’
A WRITING RESIDENCY
IN THE HEART OF THE
PELAGOS
SANCTUARY



Imagine over 2,000 kilometres of exquisite coastline hugging the north-western Mediterranean Sea, from the Golden Isles off the coast of the Var department, past Monaco and down towards Rome. It borders the largest marine protected area in the Mediterranean: Pelagos. For 'A Summer at Sea', writers Simonetta Greggio and Olivier Weber were invited by the Prince Albert II of Monaco Foundation, as part of its Pelagos Initiative, to spend summer 2024 in the heart of the Mediterranean Sanctuary.

They sailed, dived and explored, met fishers, scientists, freedivers, ferry captains, cetacean observers, sea turtle conservationists and more. In the book they have co-authored, Simonetta and Olivier interweave stories exuding their love for this safe haven for Mediterranean marine mammals that is not widely known by the general public, despite the human-driven pressures threatening its stability.



© Christel Fontès for Actes Sud

“

The Mediterranean is generous. It always has been, towards humans, towards animals, towards plants. It is Mare Nostrum, which belongs to us, as its Latin name says, and the history of humanity belongs to it too. It has taught us democracy, the art of war and the delicate exercise of cooperation between nations. It is the birthplace of the great ancient civilisations. It knows nothing of tides, but it invented the ebb and flow of history [...] It has spawned mythology, divine creatures, sea monsters and polymorphic deities. It harbours an incredible abundance of life. As historian Fernand Braudel wrote, “More than any other human realm, the Mediterranean never ceases to tell its own story and renew itself”. Yes, it renews itself and it lives on. But it is also in the throes of death.

Excerpt from Olivier's onboard journal

“

There they are, so close to me that I could swim with them if I got in the water. They are not expecting anything; they are simply there. I wonder if they trail everyone or if they have chosen us, if they are the same ones as yesterday evening and yesterday morning, and just after, a thought surprises me, or rather a feeling, that our boat is like a train speeding through the countryside and the dolphins outside are the cows I can see through the carriage window, peaceful, not at all interested in these passing convoys – always looking the same to them, I say to myself. In fact, it is them watching us pass by, not us. We are crossing their territory, not the other way around.

Excerpt from Simonetta's onboard journal

Simonetta Greggio and Olivier Weber, *Un été en mer. Voyage en Pelagos, sanctuaire de la Méditerranée*, 2025. 'Mondes Sauvages' Collection, Actes Sud. 304 pages.

'A Summer at Sea. Travels in the Pelagos, a Mediterranean Sanctuary' (book currently available in French only).



INTERVIEW WITH OLIVIER WEBER

Travel writer, senior correspondent and former UN diplomat, Weber has covered almost every contemporary war and written around 30 books. He spent a summer immersed in the reality of life in the Pelagos Sanctuary in the Mediterranean.

How did you approach the writing residency in the Pelagos Sanctuary?

I tried to put everything else to one side, like I did for my book *Frontières*, so I could fully absorb what people were going to tell me and what the animals were going to convey to me. My aim was to discover and rediscover the treasure in need of protection in a totally immersive way, with feelings and emotions.

What particularly interested me was seeing all the stakeholders: sailors, fishers, freedivers, departmental and national park managers, scientists, researchers and academics. The human side of Pelagos fascinated me, although I already knew some of them, like freediver Guillaume Néry.

What struck you most in what you discovered about the Sanctuary?

What struck me most was perhaps the holistic, integrated way it works, in cooperation with government and economic stakeholders. The shores of the Mediterranean, and Pelagos in particular, are a popular tourist destination. There's a need for mutual understanding at the heart of this protected area that started life as a paleo-ocean.

How did the experience change you?

This trip, or rather, these trips were like an emotional and sensory adventure that helped me understand the chain of living things. Rediscovering the sea and its beauty touched me deeply, as did the clear need to protect all its spaces and wildlife. The sea has featured in human myths since ancient times. It must remain a magical place and we must ensure its depths retain their mystery. In that respect, Pelagos is a model that could inspire other initiatives around the world.

“For me, the sea is a place of dreams and wonder. We must carry on exploring it respectfully, discovering it so we understand it better”.

What were the highlights at sea for you?

It was a horizontal journey across the sea, alongside sailors, fishers and scientists, as well as a vertical journey to the depths. As I come from the mountains, I find that verticality striking. I entered the third dimension, as freediver Loïc Leferme, who I accompanied on an expedition to Afghanistan, calls it.

I had a particularly memorable experience out on an IMOCA racing boat. We took turns, night and day, to listen out for sperm whales using a hydrophone. They only surface for ten minutes, then dive back down for two to four hours. We saw our first sperm whale at four in the morning. It was a sight to behold – majestic and slightly terrifying. You can recognise them from their off-centre blow hole, on the left of their head. So my first ever encounter with a sperm whale took place onboard my “seaside home” off the coast of Toulon and Cannes.

Whale language was another highlight; the clicks that aren't yet fully understood. Scientists listen to the hunting, reproduction and mating vocalisations and try to decipher what they mean. A bit like Jean-François Champollion with the Egyptian hieroglyphs.

You also got to know the Monaco Scientific Centre's coral laboratory, which is devoted to coral research, growing and fragging. What did you think?

It was an inspirational experience, firstly with the underwater farm located at the outer edge of Monaco's harbour and secondly because of the knowledge-sharing and discussions going on between researchers of different nationalities who work at the Centre. Many scientific expeditions take place abroad as a result. Other similar centres exist around the world, very often working in synergy and in liaison with the one in Monaco, as well as exploring more new ways of transplanting and growing coral. It's vital for biodiversity that these centres continue their research and trial more transplanting techniques.

Which people you met had the biggest impact on you?

Eric Rinaldi, the only fisherman in Monaco to fish sustainably. The contrast between what goes on on the coast and onboard his low-tech boats is striking. It's overconsumption on the one hand, and him being careful about everything on the other. He's a traditional fisher, a guardian of the seas.

Freediver Guillaume Néry also made an impression on me, because of the affinity he has with the marine environment and fish, and the way he understands cetaceans. He always keeps his distance, out of respect.

We also had our very own Professor Calculus from *Tintin* onboard the boat: a fascinating acoustician named Hervé Glotin, who is driven by real passion. He confirmed what I've felt since I was a young boy: the work of scientists, and by extension everything in the realm of science, is based partly on emotion and intuition.



I would also like to mention Jean-Pierre Gattuso, director of the Villefranche-sur-Mer oceanography laboratory and the master of ceremonies of sorts for much of the research in the Sanctuary. And Jean-Marie Dominici, former director of Scandola Nature Reserve in Corsica, whose description of the pressures he faced to get the marine reserve recognised really moved me.

| *A pod of sperm whales.*

What message would you like to share about marine protection following your writing residency?

I learned that when you approach cetaceans, you should respect them by keeping your distance. They mustn't be disturbed by noise, inflatables, engines or shouting. If we can't see marine mammals up close, all the better for them. Watching from afar is still amazing. For me, the sea is a place of dreams and wonder. We must carry on exploring it respectfully, discovering it so we understand it better. Remember though – exploring is fine, exploiting isn't. The seabed isn't a commercial zone and isn't for sale.

How did the experience inspire your book, 'A Summer at Sea'?

I wanted to achieve something positive in our co-written book, by echoing what many stakeholders agree: that we need to pool our efforts, especially civil society. NGOs and associations are already working on that and taking things even further than government initiatives, which are nevertheless essential.

“I wanted to achieve something positive in our co-written book, by echoing what many stakeholders agree: that we need to pool our efforts”.

It's a literary book above all, a kind of dreamlike journey. With lots of literary references to great poets and writers who romanticised the sea, such as Victor Hugo, Jack London and Baudelaire.

How could Pelagos act as a model for other marine areas?

What's great about Pelagos is the convergence of different stakeholders: governments, ministers, ambassadors, civil society, the scientific community and international organisations. They work as a network, they talk to each other, they share ideas and arrive at an understanding. Pelagos is definitely a model that should be replicated elsewhere.

There aren't any direct territorial issues in the Sanctuary, which makes the area easy to protect. However, there are issues related to raw materials and minerals. What scares me is what's happening with today's neo-empires. For instance, I've observed predatory practices by Russia and China in Africa and at sea. That plundering of resources and fish must not happen in the Mediterranean.

| Long-finned pilot whales.



INTERVIEW WITH SIMONETTA GREGGIO



Italian novelist,
translator,
radio producer
and screenwriter
Simonetta Greggio
lives between Paris
and the Luberon.
A journalist for
several years,
she is the author of
more than 15 novels
and short stories.

Did your trip in the Pelagos Sanctuary change you?

Yes, completely. I was an amateur before. I had to research, read, study, understand – well, try to understand, because it isn't easy. Before, I used to lie on my towel on the beach, dive with my little mask on, see the fish and go, "Oh, look!". Now, I say, "Hey, there's a grouper. How come it's back? Are there any octopuses? Is it octopus fishing season? Why shouldn't we farm octopuses? Why are there more dolphins in Ligurian waters? Oh yes, there are fish farms in the open sea. Right, I see". Those are new considerations for me. I spent time with scientists obviously, but also with people who make their living from the sea, who see the sea not only as a living world, like I do, but as a resource. Those were fascinating, novel interactions for me. The written and spoken word came alive during my experiences at sea.

Tell us about a specific experience you had, like the one on the Ligurian fishing boat.

I had the opportunity to go on board a sardine fishing boat in Liguria and see how it all works. A dozen people – usually very poor Sicilians who have been fishing their whole lives – work and live on board for six months a year. These men, aged between 18 and 68, earn a tiny amount of money, which they send to their families back in Sicily.



| A loggerhead sea turtle.



“Earth’s health depends on the ocean’s health. Not enough people know that. Or else they don’t see beyond the words”.



© Greg Lecheur

They go *lamparo* fishing (using lights) every night, conditions permitting. They earn a percentage of what they catch, so it's in their interest to be at sea for a really long time. They're subjected to ice-cold showers three, four or five times a night, because when you catch the fish, lift them up into the air and open the net, saltwater gushes all over you. Those nights are dreadful. I was there for two of them. I wasn't fishing, I wasn't being given ice-cold showers, but I was still absolutely shattered.

I can't go out to sea with my diehard environmentalist's beliefs and say, "Right, let's stop this". I have to understand the economic and social context. Where do these people come from? What is their connection to the sea? It has clearly existed much longer than mine. Without understanding, there is no change.

The nights I was there, we were able to release about 30 sunfish back into the sea. I'd never held a sunfish in my hands before. It really moved me. Intimately touching the sea is quite different to seeing it from the beach.

| A sunfish.

What was the most memorable moment you had over your summer at sea?

The first sperm whale you see changes you completely. It's like the Eiffel Tower emerging from the waves. It's mythological, it's a real-life Moby Dick. He was 20 metres away from me. The water I swim in is in fact his water. There's life before seeing a sperm whale, then there's life after. More than with dolphins, more than with fin whales, more than with rays, more than with turtles, the experience that nourished my soul was communicating with a sperm whale.

You look at this completely placid animal with a child's eyes and huge compassion. They couldn't care less about our jet skis, our ferries and our recklessness. They are there, they have always been there. They will continue to be there as long as we let them live and swim in this sea. And yet, thanks to our ignorance, lack of interest and desire to profit from them, we are putting them in real danger. And ourselves as a result. Earth's health depends on the ocean's health. Not enough people know that. Or else they don't see beyond the words.

You also spent several nights waiting for baby turtles to hatch.

Yes, I spent a night at a loggerhead sea turtle nesting site, on a beach in Hyères. It was very emotional to watch the hatchlings emerge from the sand and scuttle off towards the sea. Very few actually survive – only one percent. I would like to go back there this year because I should really experience the wait. That's when things happen and become clear: during the waiting.

Did the nights at sea have a particularly big impact on you?

Yes, the nights on the open sea left the biggest impression on me during the residency. When there's only blue as far as the eye can see. Or black, or grey. It also feels strange when the sea's rough. One night I slept in the skipper's little bunk right at the front of the boat; it felt like I was in a bubble surrounded by water. And I thought about all those animals underwater that I didn't know, and how the sea could sweep me away at any moment. I remember the stars looking really distant, because all the water vapour means the stars don't look like they do in the mountains, where they're so present, so close. At sea, it was as if the sky was very far away. We were really in the middle of the water.

Which people you met stuck with you the most?

Véronique Sarano is a highly competent oceanographer. I'd like to listen to her more! In the books she has written with her husband, the wonderful François, she says, for example: "To change the world, you have to change yourself". I agree with her wholeheartedly.

My friend Anne Settimelli, who founded the association Explore & Preserve, devotes her time to marine conservation and raising awareness among schoolchildren. She also tackles irresponsible behaviour (which there's a lot of) such as: overflowing rubbish bins on beaches with no measures in place to prevent the litter from scattering further; people who mistreat the fish they catch, or throw live octopuses against the rocks "to soften them up", or fish them out of season; holidaymakers who drag their anchors through the seagrass; officials who decide to hold fireworks displays in fragile areas; and plastic ducks being released into waterways as part of an advertising campaign. The list is endless. She's angry and I understand why. I am too, even if I don't show it. You can't hold your breath because of your anger – you have to use it to spur you on.

Then there was a captain who had had a collision with a sperm whale. The experience had traumatised him and changed his life. As a result he had become involved with a cetacean protection society.

People like that. Who decide it is possible to change and make changes.

“In my opinion, the Pelagos Sanctuary must become a model for all marine protected areas around the world”.

Did the experience develop your eco-feminist vision of the world?

Before diving into a subject that's close to my heart, I try to understand it through the people – the women, in this case – who understood it all before me. During my research, I came across the women writers and philosophers who spoke about, argued for and formulated eco-feminism, a vision of the world I identify with. It calls into question the essence of our entire society and how it operates.

Over our summer, I met a few women involved with the sea, but mostly men. Some of them were great, but it's mainly their voices you hear. You often find women behind them, underpinning, supporting. But I'd like to hear more from those women. A little story: my arrival on the sardine fishing boat was met with a frown. A woman at sea is considered bad luck!

Have you become more involved in environmental action since the residency?

I've started assisting Explore & Preserve. We organise meetings with women authors, environmental stakeholders specialising in the living world and leaders of biodiversity protection associations and other entities. We're up to the fourth edition of our event 'Les Rencontres du 3^e Poulpe' ('Close Encounters of the Octopus Kind') and have brought out a collection of short stories published by Charleston called *Des Nouvelles de la Mer* ('Short Stories from the Sea'), which is fantastic. We've also created a prize that will be awarded to the Carmignac Foundation in Porquerolles this year. All that is lovely, but more importantly, it's a victory: we're bringing together culture, the beauty and conservation of nature, philosophy and the protection of the living world.

I'm seeing that many women are involved in this kind of thing. We're really here to raise awareness, to get the sea talked about in a more emotional and sensitive way. Men are supporting us too, of course. Willing men.

What are your thoughts about the current state of the Pelagos Sanctuary?

As it stands, I think Pelagos is a marine protected area... on paper. This brilliant project must be blessed with firm action and decisions, and real commitment from everyone involved. Italy, France and Monaco must be bold and enforce their tripartite agreement. Politically and economically. Disregarding the egos operating within it. As the Prince Albert II of Monaco Foundation's Pelagos Initiative is doing.

For example, ferry speed regulations need to be reviewed. And jet skis, one of the most polluting water sports, should simply be banned. They consume an enormous amount of energy, their exhaust fumes pollute the air and water, they leak engine oil that takes years to degrade and they generate noise pollution (120 to 190 decibels, which is far too loud). All that for the pleasure of having a powerful, not to say dangerous, machine between your legs. It's both unreasonable and out of sync with the objectives of a marine reserve.

In my opinion, the Pelagos Sanctuary must become a model for all marine protected areas around the world.

What action should the Sanctuary take as a priority?

The list is too long. It would take time to develop, but what's needed for starters is rectitude. The desire to make Pelagos an exemplary sanctuary, so we can say to the world: "Sperm whales, fin whales and dolphins swim freely across the entire world's seas, but they return here, to Pelagos, to eat, rest and have their young, because this is where they find peace!". Pelagos exists and the stakeholders are seated around the table. Can they make this Sanctuary truly effective? They need to take hold of every positive idea and turn it into action.

Do I believe they can? It depends on the day. But I act as if I do, because that's the only way we can make things happen. Well, maybe. We'll see.

Balearic Sea





PELAGOS SANCTUARY

Established by an Agreement signed by France, Monaco and Italy in November 1999, the Pelagos Sanctuary is the first cross-border Mediterranean sea area devoted to the protection of marine mammals. Spanning 87,500 square kilometres between the three countries, this plankton-rich zone is home to an abundance of cetacean species, some of which appear on the International Union for Conservation of Nature (IUCN) Red List of Threatened Species. It is a pivotal reserve, incorporating over 100 marine protected areas (that is, half of all the Mediterranean's marine areas with protected status).

PELAGOS INITIATIVE

'A Summer at Sea' was run in the context of the Pelagos Initiative, launched in 2021 by the Prince Albert II of Monaco Foundation, World Wide Fund for Nature (WWF), International Union for Conservation of Nature (IUCN) and the Mediterranean Marine Protected Area Managers Network (MedPAN). The aim of this partnership between some of the Mediterranean's leading civil society stakeholders is to create a network of local stakeholders and to fund activities to protect, preserve and promote the Sanctuary. These activities are carried out in accordance with the Pelagos Agreement Management Plan, drawn up by the three countries responsible for the Sanctuary.

Currently, less than 9% of the Mediterranean Sea is officially protected and the Pelagos Sanctuary covers almost half of that area.

SEA
TURTLES
IN SÃO TOMÉ:
A COMMUNITY
CONSERVATION
PROGRAMME

Since 2024, the Prince Albert II of Monaco Foundation has been working alongside Programa Tatô, an international NGO based on the island of São Tomé that plays a key role in conserving sea turtles and sustainably managing marine and coastal ecosystems through an integrative community conservation approach.



São Tomé and Príncipe is a small island country off Central Africa that is home to exceptional biodiversity, including an abundance of marine wildlife. Its two islands, located in the Gulf of Guinea, are home to important breeding and feeding grounds for sea turtles. Five of the seven species distributed throughout the world frequent their waters: the green turtle (*Chelonia mydas*), olive ridley turtle (*Lepidochelys olivacea*), hawksbill turtle (*Eretmochelys imbricata*), leatherback turtle (*Dermochelys coriacea*) and the loggerhead turtle (*Caretta caretta*).

All these turtle species are classified as highly endangered on the International Union for Conservation of Nature (IUCN) Red List. This is due to a long tradition of exploiting turtles for meat and egg consumption, as well as for shell-based crafts.

Not to mention more recent threats, such as fisheries bycatch, pollution, coastal urbanisation and erosion, illegal sand mining and unregulated tourism.

Since 2014, Programa Tatô has been working to bolster the sea turtle conservation programme on the island of São Tomé with the help of local communities. The organisation is responsible for protecting and monitoring the species and improving the management of marine and coastal ecosystems. At the same time, it helps to develop sustainable livelihoods as an alternative to the turtle trade. Carrying out their work is a challenge that requires mindset shifts at every level.



94
61

94 accidentally captured turtles have been released thanks to the programme.

Programa Tatô employs 61 people, most of whom are from coastal communities.

80

The 80 main sea turtle nesting beaches are monitored and protected by community agents.

50

More than 50 former sea turtle poachers have been given training and have taken part in sea turtle conservation activities.

82,700

More than 82,700 adults and 11,800 children have been taught about the importance of protecting sea turtles and learned how to behave responsibly around them.

25

25 km of beaches are monitored daily during the nesting season, which runs from September to April (55 beaches in the north, east and south of the island).

50

50 km of beaches are monitored weekly from November to February, with a weekly census conducted on the 25 beaches least visited by sea turtles.

INTERVIEW WITH BETÂNIA FERREIRA- AIRAUD

**Director and co-founder of
the Associação Programa Tatô**



How did the Programa Tatô project come about?

Programa Tatô was originally created in 1998, following an initial survey in 1994 by the American Peace Corps. It began under the ECOFAC programme, funded by the European Union, with the goal of monitoring the main sea turtle nesting beaches in São Tomé and Príncipe. In 2002, the coordination was handed over to local NGO MARAPA and in 2014 we were called to support the team. Then in 2018 we made a pivotal decision – we transformed what had been a project into an independent national NGO: the Associação Programa Tatô. We deliberately kept the name, already well known and trusted by local communities, authorities and partners. Since then, our work has embraced an integrated approach, connecting science, conservation and sustainable community development.

What scientific action is being taken to preserve the marine turtles on the island of São Tomé?

Our conservation work is deeply rooted in science. Throughout the nesting season, from September to April, we systematically monitor more than 80 key nesting beaches. This includes recording nesting activity, protecting nests and studying the nesting behaviour of female sea turtles to gain insights into the dynamics of the adult populations returning to our beaches. We tag nesting females and conduct genetic analyses to determine population structure and their connectivity with other regions. We also deploy satellite transmitters to track post-nesting migrations and identify critical foraging areas. Our studies extend to juvenile and sub-adult turtles, examining their habits, habitat preferences, health and exposure to contaminants.

We also investigate accidental captures in fisheries, working closely with fishers to safely release turtles while collecting valuable data on these interactions. In addition, we conduct social studies to evaluate the impact of our conservation and community programmes. This helps us assess how attitudes, behaviours and livelihoods are shifting in coastal communities. Together, these scientific efforts enable us to detect trends, refine conservation strategies and support evidence-based decision-making at both the national and local levels.

“Our work embraces an integrated approach, connecting science, conservation and sustainable community development.”



Local name: Tatô
Number of nests: 350 – 680



Local name: Sada
Number of nests: 140 – 270



Local name: Mão Branca
Number of nests: 250 – 1150



Local name: Ambulância
Number of nests: 30 – 160



Local name: Cabeça Grande
We have observed some nests belonging to this species that occasionally frequents our coastal waters.



Have you already seen any changes in certain species?

Yes, we're beginning to see some really encouraging signs. Hawksbill turtles, which are critically endangered, are showing clearer signs of recovery, and green turtles are also slowly increasing. This tells us that two decades of conservation work, protecting nesting beaches, involving local communities and reducing hunting pressure are making a real difference. But, of course, these gains are still fragile. New threats like artisanal fisheries bycatch, sand mining and unregulated tourism continue to put pressure on these populations. So while it's very hopeful to see these early signs of recovery, it's also a reminder that we need to keep pushing forward with strong conservation efforts to secure their future.

What is the link between marine turtle conservation and the sustainable management of marine and coastal ecosystems?

For us, conserving marine turtles is not just about protecting an endangered species. By working for the creation and proper management of protected areas, we aim to safeguard critical habitats like nesting beaches, seagrass meadows and coral reefs, while also creating sustainable opportunities for local communities whether through more sustainable fishing practices, responsible tourism or better-planned coastal development. In this way, turtle conservation becomes a driver for broader sustainable management of marine and coastal resources, ensuring that both biodiversity and local livelihoods are protected for the long term.

What is special about your conservation approach?

What makes our approach unique is that we place people at the heart of conservation. We believe that protecting nature only works when local communities are truly part of the process. That's why we invest in community members – many of whom once depended on turtles for their livelihoods – and train them to become conservation agents. We're also starting to support social projects in each community where we're active, funded through revenues from turtle-watching activities. These projects include improving school conditions, creating cultural centres or even providing access to clean water. For those who traditionally relied on sea turtles, we help develop alternative livelihoods – such as being part of our conservation team, small businesses or even new projects, like the one we've just launched to preserve fish in glass jars, enabling them to transition to legal and sustainable activities while still supporting their families. At the same time, we focus on long-term change by raising awareness and educating the youngest generations, who will one day become the future guardians of these ecosystems. So at the end of the day, we're not only conserving marine turtles and their habitats, we're also investing in people, building stronger communities that can coexist with, and protect, their natural heritage.

“Turtle conservation becomes a driver for broader sustainable management of marine and coastal resources.”

How do you go about changing mindsets?

Changing mindsets and behaviours is never immediate, it's a slow process that can take years, sometimes even generations. It requires patience, consistency and, above all, trust. People need to see that protecting nature is not just about saving wildlife, but also about improving their own lives and their children's future. Ultimately, it's also about creating pride in São Tomé's natural heritage and making conservation something that belongs to the local people. Education and awareness, especially among children and young people, are key because they influence their families today and will become the conservation leaders of tomorrow.

What difficulties have you come up against?

We've faced many challenges over the years. One of the biggest is weak law enforcement, which makes it difficult to fully protect nesting beaches and marine areas from illegal activities. Another issue is the lack of communication and coordination between different government sectors, which can slow down decision-making and the implementation of conservation policies. And, of course, sustainable long-term funding is always a challenge. Without it, it's hard to expand our team or provide better working conditions for the people who are on the ground every day making conservation possible. Despite these difficulties, we keep moving forward, building partnerships and finding creative ways to overcome the barriers.

What has been your greatest victory?

Our greatest victory has been seeing former turtle hunters and fishers turn into some of the strongest conservation leaders within their own communities and even within our team. They are living proof that when people are given trust, opportunities to build their skills and real economic alternatives, they can become powerful advocates for protecting the very species they once depended on. This transformation is incredibly inspiring.

What are your next development priorities?

Over the years, Programa Tatô has become increasingly recognised as a national example of community-based conservation. Therefore, our priority is to continue growing while staying deeply connected to the local communities we work with.

We also aim to broaden our approach beyond marine turtles to include other marine megafauna and their habitats, creating a more holistic strategy for protecting São Tomé's rich marine biodiversity.

Another key focus is investing in national capacity, training and empowering Santomeans to become the next generation of marine conservation leaders. And, of course, we're working to secure a more sustainable future for our organisation by ensuring long-term funding that can support marine conservation in São Tomé for years to come.





A NEW
WAVE OF
ENVIRONMENTALLY
COMMITTED
LEADERS

The third edition of the Prince Albert II of Monaco Foundation's Re.Generation programme, a tailor-made initiative designed to strengthen the leadership and communication skills of the talented individuals selected to participate, took place from 18 to 28 June 2025.

*Ailars
David*
(Tanzania)

*Xananine
Calvillo*
(Mexico)

*Célia
Roussin*
(France)

*Yara
Yousry*
(Egypt)

*Elena
Martínez
Martínez*
(Spain / Dominican
Republic)

*Shirley
Binder*
(Panama)

*Irina
Fedorenko*
(Russia)

*Björn
Sandström*
(Sweden)

*Adhitya
Raghavan*
(India)

*Lefteris
Arapakis*
(Greece)





In the current context of the climate and biodiversity crisis, a large proportion of the younger generations are choosing careers that are central to the transition to a fair and sustainable future. With a strong drive to take action and a clear understanding of the complex challenges our planet faces, these changemakers are working hard to create the positive transformations we all need.

| The cohort enjoyed special conversations with HSH Prince Albert II of Monaco.

To boost this momentum, the Prince Albert II of Monaco Foundation has been supporting talented early-career individuals, aged under 37, from all corners of the globe and a range of sectors (activism, conservation, science, media, finance, politics, art, entrepreneurship and innovation) since 2023.

Selected in collaboration with high-level partners, the individuals first take part in a residential programme offering training provided by the European Institute of Business Administration (INSEAD), masterclasses with world-renowned experts, field trips and networking sessions.

Each member of the cohort is then given support by the Foundation's staff for a year to maximise their media impact and find international speaking opportunities, which drives visibility for their environmental action and projects.

A solid community has developed over the years, motivated by a shared passion to protect our planet and build a more sustainable future.

To coincide with our 'Welcome to 2050' special report, we asked the 10 talented members of the 2025 Re.Generation cohort to share their visions for a desirable, sustainable future. Their inspiring ideas will spark our enthusiasm and motivation as we imagine tomorrow's world.

ELENA MARTÍNEZ MARTÍNEZ



Elena Martínez Martínez is a Spanish oceanographer, marine biotechnologist and blue economy entrepreneur. As the co-founder and CTO of SOS Biotech, the first Blue Tech company in the Dominican Republic, Elena is dedicated to advancing the transformation of invasive seaweed into high-value bio products that replace fossil-based inputs and foster a circular economy.

What we fail to valorise, we often label as useless. But nature shows us that everything can have purpose if we choose to see it. Waste is a human concept. In nature, nothing is wasted, everything has a role. Even the oxygen we breathe is a by-product, a “waste product” of photosynthesis.

So why do we treat abundance as a problem?

Seaweed invasions are one of the many faces of climate change – a crisis impacting our coasts, economies and people. A massive threat, yes, but also a massive opportunity. By shifting our perspective, we can transform this so-called waste into bio-based products that protect crops, replace pollutants and inspire new sustainable materials, driven by business models in which we no longer have to choose between people, planet and profit, because they are designed for all three to thrive.

Nature already shows us the path to this future. It's about recognising the potential in what we once deemed useless. The spark has been lit – and the transformation is already in motion.

”

Shirley Binder is Panamanian marine biologist who works in partnerships, integrating governments for marine conservation policy outcomes. Senior officer at Pew Bertarelli Ocean Legacy, she is recognised for leading ocean protection efforts and negotiating major shark conservation agreements.

SHIRLEY BINDER



My vision for a desirable future is one where people and nature thrive together. Biodiversity includes us: when we speak about biodiversity loss, we're speaking about the loss of ourselves. For me, conserving the ocean and its vast, intricate life is ultimately about conserving humanity.

Implementing a strong and meaningful 30x30 commitment in the ocean – protecting 30% of marine areas by 2030 – is essential for the well-being of coastal communities, fishers, tourism and other social and economic activities that depend on a healthy ocean. A desirable future means embracing a holistic approach to conservation.

But to live in balance with this immense diversity, from microscopic life to giant migratory species, is not just a conservation goal; it's a path to a better planet and a more fulfilling human existence. That vision, where we coexist with and protect the ocean's richness, is what brings me hope, and happiness.

”

AILARS DAVID



Ailars David is a Tanzanian marine scientist dedicated to empowering youth and indigenous coastal communities in ocean restoration and sustainability. He is the founder and hub leader of Sustainable Ocean Alliance Tanzania (SOA Tanzania), a youth-led NGO driving marine conservation initiatives and an official hub of the global Sustainable Ocean Alliance.

My vision of a desirable future is one where ocean and climate justice are inseparable, and where we protect the ocean, not as a distant wilderness, but as a living system intertwined with our survival. I see coastal youth leading the way, not as victims of rising tides, but as architects of regenerative solutions. Through community-based restoration, Indigenous wisdom and science, we can rebuild seagrass meadows, restore mangroves and defend marine biodiversity. This future recognises the ocean as a climate ally, absorbing carbon, feeding millions and connecting us all. If we dare to imagine beyond extraction, beyond borders, we can create a thriving planet starting from the water up.

”



YARA YOUSRY

Yara Yousry is an Egyptian architect, sustainability advocate and award-winning entrepreneur. She has emerged as a leader in sustainable design and social impact. She has been recognised by the IUCN as a changemaker and was a top six finalist at the Global Student Entrepreneur Awards (GSEA) for her innovative approach to merging architecture, sustainability and community-driven solutions.



A desirable future for me is one where the profound connection between humans and nature is fully acknowledged and celebrated. It's a world where design is no longer driven by individual egos or abstract aesthetics, but by a deep understanding of human behavioural choreography and needs. Too often, we see products and spaces created with little regard for the people who will live, work and interact with them. My vision is a future where participatory design is not just a theoretical framework in textbooks but a lived reality, where every voice matters and communities shape the solutions they need. This future is one where inclusion, empathy and collaboration define how we create, ensuring that design is truly for the people and by the people, honouring our responsibility to both people and planet.

”

CÉLIA ROUSSIN



Célia Roussin is a French entrepreneur, founder of Pépite Raisin, a pioneering company specialising in circular innovations derived from grape and wine residues. With over a decade of global experience in the wines and spirits industry, Célia recognised the immense potential of the bioeconomy and nature-based solutions for regenerative purposes.

I'm sitting at the table. We're chatting and laughing. We're smelling and tasting. The tomatoes are flavourful: juicy, sweet, umami, tangy. Everything is delicious and I'm taking pleasure from my food. I truly love eating; eating with other people, sharing moments in time. I love the flavour sensations in each bite as much as the emotions they evoke. My vision of a desirable future is contained in that plate, in that tomato and in the glass of wine maybe standing next to it. What we're eating is good – for our pleasure and for our health. What we're eating comes from living soils – soils that produce quality food that truly nourishes us.

Today, 40% of the world's land is degraded. I love eating, but I am also acutely aware of the threats facing our food due to soil desertification.

My desirable future is a world where everything we grow contributes to global health. With regenerative and organic agriculture, seasonal supplies, and food education from a young age. A world in which taste and connection to others bring joy.

Care begins at the table, on the plate – caring for yourself, for others and for the planet through the simple act of eating.

”



ADHITYA RAGHAVAN



Adhitya Raghavan is an Indian entrepreneur and engineer focused on building scalable ventures that drive social impact through technology and sustainability. Now pursuing his MBA at Harvard Business School, Adhitya is building a start-up at the intersection of AI and manufacturing aimed at helping factories in emerging markets improve productivity, reduce waste and operate more sustainably.

I envision a future where we stop choosing between economy and ecology – and start designing systems that serve both. At Takt, we're building AI tools to help factories reduce inefficiencies, save energy and lower emissions without needing to overhaul entire operations.

These factories, often invisible in global climate conversations, are vital to livelihoods and economies.

Yet they are stuck with outdated processes and slim margins. We believe the path to a more sustainable world lies not just in invention, but in optimisation – using technology to get more out of what already exists.

A desirable future is one where workers are empowered, resources are respected and data helps us make smarter, cleaner decisions – one factory at a time. It's not about slowing down progress, but about realigning it with the planet's limits and possibilities.

”

IRINA FEDORENKO



Irina Fedorenko is a Russian expert in climate finance and a serial greentech entrepreneur. She is the head of Origination at Abatable, a climate solutions platform, providing carbon market intelligence and driving investment into high-quality carbon projects. She is also co-founder of Dendra Systems, Flying Forest and Vlinder.

I'd love to live in a world where the environmental costs of doing business are properly accounted for. This would be a step forward for our health, food, security and so much more. Not only do I dream of such a world, I am actively working on creating it, from co-founding a tree-planting drones company to becoming a mangrove project developer. I dream of a world where companies invest in nature restoration. When instead of evaluating the risks of each project and being afraid to deploy capital, they set an internal carbon price and factor in the risk of not doing anything. This would generate income a company could then spend on climate action and safeguard the future of their business operations – and the planet. This would also create jobs for young people who will no longer just be called “idealists” like myself, but also pragmatists who see the value and urgency of restoring nature.

”

XANANINE CALVILLO

Xananine Calvillo comes from the Ngiwa Indigenous peoples in Puebla, Mexico. She is the co-founder of JnaTsjo, a women- and youth-led initiative to protect traditional knowledge and native ecosystems in the Valley of Tehuacán.



The future I envision is ancestral. It is one where societies listen to the wisdom of the Earth to foster innovation and where living beings breathe into their hearts the power that will heal our bodies and our territories. Such a future has its foundations in the traditions our ancestors taught us and in the changes our youth dream of. That is the future I desire not only to live in, but to contribute to today to make a reality tomorrow. Indigenous futurism rests on that thinking; the communities that have been the ancient guardians of the land for hundreds of years can inspire us to envision alternatives to the climate and social crisis, to sustain life in the autonomy of communities, in the cooperation of cultures, and to create reciprocity with ecosystems to bring healing and reparations where history dictates. Such a future exists – we are creating it, hearing it on a quiet morning, working to sow it every day and letting it nourish our bodies/territories as we move towards it.

”





LEFTERIS ARAPAKIS

Lefteris Arapakis is from the fifth generation of a family of fishermen from Greece. He co-founded Enaleia, a social enterprise with a mission to restore the marine ecosystem, while generating value for fishing communities. Enaleia established Greece's first fishing school and launched Mediterranean CleanUp, a large-

scale marine plastic removal initiative engaging fishers. To date, over 58% of the collected plastic – discarded fishing nets and marine plastic – has been reintegrated into the circular economy, contributing to the production of items such as kayaks.

My vision is of a harmonious relationship between humanity and nature. A civilisation that no longer exploits the Earth, but cultivates win-win relationships with the environment. A world with plastic-free seas, a stable climate and clean air.

Local communities play a key role in this transition – leading efforts in sustainable practices, innovation and stewardship. By embracing the blue and green economy, we can create fair jobs, reduce poverty and empower people where they live.

A future where humanity still exists and thrives. Protecting the planet becomes not only a moral duty, but also an existential action plan.

”

Björn Sandström is a Swedish professional cross-country skier aiming for the Milano Cortina 2026 Olympics. He has a degree in Environmental Science and works for a progressive environmental company. A strong advocate, he is leveraging his platform to promote sustainability and climate awareness within winter sports.



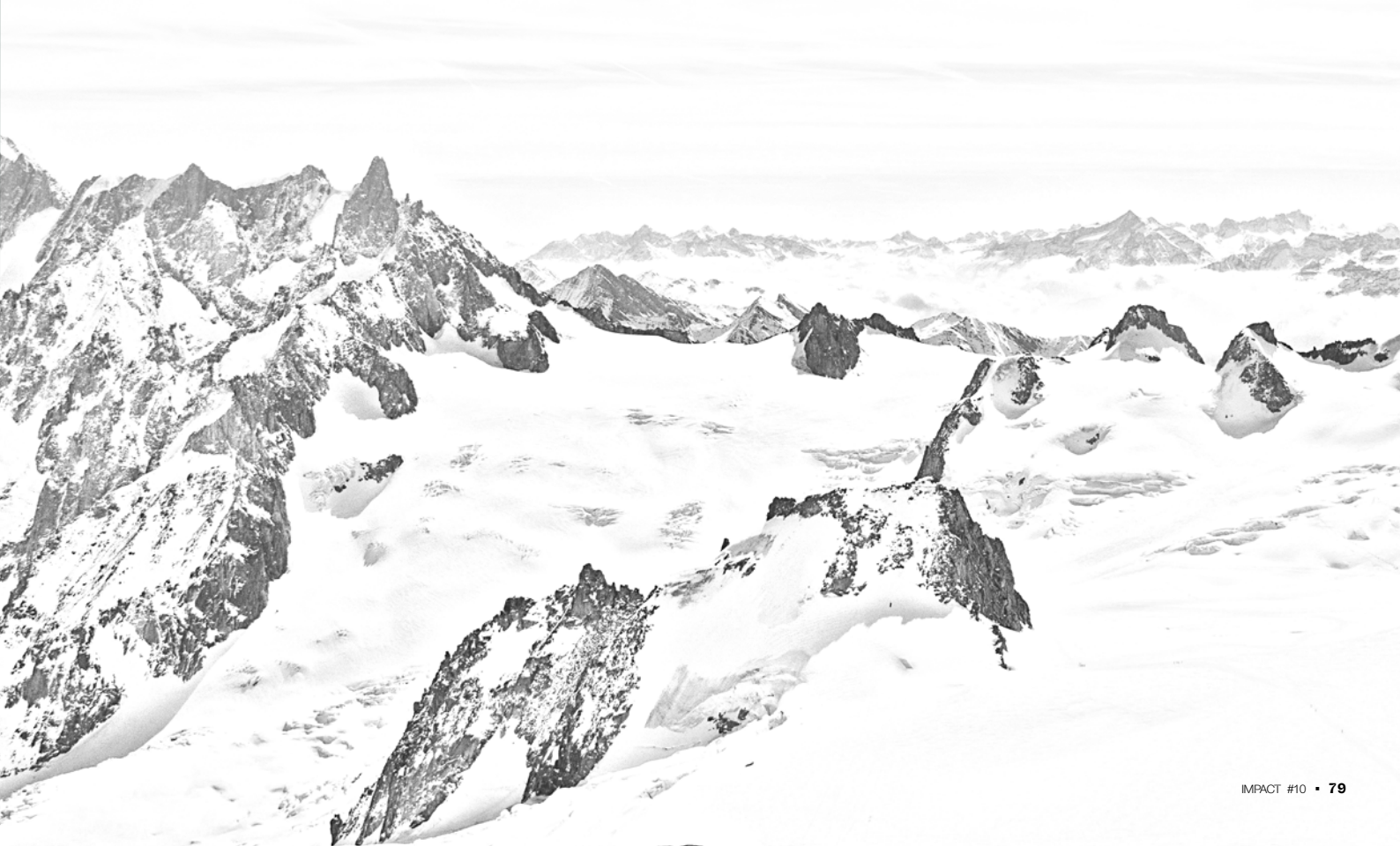
BJÖRN SANDSTRÖM

A desirable future is one where sport and sustainability go hand in hand – where athletes not only inspire on the track but also lead off it. I envision a future where winter sports thrive on a healthy planet, where emissions are radically reduced and where greenwashing and sportswashing are replaced by transparency and real action.

One very crucial issue we must confront, to return within our planetary boundaries, is the presence of fossil fuels in sport. Every day around the world, incredible athletes and teams deliver awe-inspiring performances – yet far too often, they are simultaneously promoting fossil fuel sponsors. This contradiction undermines the very future their sports depend on. If we are serious about having winter sports in 2050, we must drop fossil fuel sponsorships or demand that these companies radically accelerate their transition away from fossil fuels.

I envision a world where collective courage, data and emotional connection drive change and where people feel empowered – not alone – to shape a just, climate-resilient future.

”



CELEBRATING
ENVIRONMENTAL
COMMITMENT

The Prince Albert II of Monaco Foundation launched the Environmental Photography Award five years ago, with the intention of rewarding photographers who are raising awareness about environmental protection.

Since then, the award has provided international visibility for more than 200 images, helping to spread their conservation message.



“Continuous awareness and action are needed; conservation is not a one-day job.”

Ami Vitale,
President of the jury 2025

From 3 June to 31 July, tigers, bears, manatees and other creatures from the living world were found side-by-side on the Promenade du Larvotto above Monaco's beaches. Although the public is used to this annual exhibition of the Prince Albert II of Monaco Foundation Environmental Photography Award, people never cease to be captivated by the images on show and the mix of emotions they evoke – sometimes all at once – of wonder, astonishment and outrage.

Ami Vitale, a National Geographic photographer and documentary filmmaker from the US, chaired the jury in 2025. She believes that environmental photography has the power to shift perceptions: “Photography plays a critical role in highlighting the interconnectedness of individual well-being and environmental health. Images prompt conversation and consideration of how we can protect and value these irreplaceable environments across the planet. They cut through apathy, capture reality, evoke empathy and ignite action. Through this visual medium, we reconnect people with nature, highlighting not only the perils but also the promise and the hope that exists all around us”. Vitale's hope is for initiatives such as the Environmental Photography Award to “motivate more of us to transition from passive observation to active advocacy for our planet”.

“Continuous awareness and action are needed,” she urges, “conservation is not a one-day job. In the past 50 years, we have lost 73% of the world's wildlife. This stark reality underscores the urgent biodiversity crisis we face. The future of the planet is in our hands. We cannot afford to feel overwhelmed or hope that someone else will address the problem.”

Spanish photographer Angel Fitor, who was named Environmental Photographer of the Year 2025, takes a similar view: “We environmental photographers have a simple yet colossal task: to translate the language of nature. The natural world is of course an endless source of beauty and fascination, but visual storytelling goes further, revealing the hidden threads that weave together the complex and fragile relationships binding our own existence to that of the planet.” The image that won him the Grand Prize, *Unseen Unsung Heroes*, does exactly this by portraying “the silent actions of humble creatures that nonetheless have a pivotal influence on the entire Mediterranean marine ecosystem – an ecosystem that we, in turn, depend on”. Angel, who also won in the Change Makers: Reasons for Hope category with his image *Training Day* (see page 85), said he was “proud to be one of the ambassadors of the Environmental Photography Award, which reflects the Principality of Monaco's historical and enduring commitment to the Mediterranean Sea, which has inspired [his] career since early childhood”.

The Environmental Photography Award is a flagship awareness-raising event for the Prince Albert II of Monaco Foundation and one of the three pillars of its Green Shift initiative, which is dedicated to promoting inspiring environmental storytelling. The award “gives a voice to the living world and speaks directly to the heart of the public”, as Olivier Wenden, the Foundation's Vice-Chairman and CEO, explains. “The photographers' observations enrich our understanding and give us a fresh perspective, encouraging greater collective action to save our planet.”



MORE INFO

fpa2photoaward.org



| Angel Fitor
Unseen Unsung Heroes
Worms flushing sand out of their
burrows, Spain, 2023

OCEAN WORLDS CATEGORY WINNER
ENVIRONMENTAL PHOTOGRAPHER 2025

As members of the endofauna (or infauna) – a huge, diverse community adapted to underground life at sea – these burrowing worms play a pivotal role in maintaining oxygen and nutrient circulation in the upper layer of sediment on the seabed, an activity that generates an entire ecosystem hidden within the substrate. All the seagrass beds along the world's coasts, the riches of coastal estuaries and deepwater muddy beds and the vast biodiversity associated with soft-bottom sea floors rely on the existence of these little-known worms. Their collective silent action therefore has a massive impact on a global scale. On location, it was impossible to predict when the worms would be active. Some seemed dormant, others flushed for just a few minutes a day, while others were active throughout the day, but with an unpredictable frequency. This photo is the result of two months' work, with twenty dives of five hours each, at a depth of eight metres.



| Amy Jones
Breeding Machine
 Elderly Indochinese tigress
 on a tiger farm, Thailand, 2023

HUMANITY VERSUS NATURE CATEGORY WINNER

For over 20 years, this elderly Indochinese tigress (*Panthera tigris corbetti*) was confined in this cage on a tiger farm in Northern Thailand and used as a breeding machine, producing cubs for industries ranging from tiger tourism to the illegal trade in skins, teeth, bones, claws and meat. This tigress, later named Salamas, was rescued from the farm alongside 14 other big cats by NGO Wildlife Friends Foundation Thailand (WFFT). Despite her frail and emaciated condition, Salamas survived the 12-hour journey to their 17-acre tiger sanctuary forest, where she was able to roam freely and experience grass beneath her paws and the warmth of the sun on her fur for the first time in two decades. Unfortunately, Salamas died nine months after being rescued. Demand for tiger tourism experiences and products has resulted in an estimated 1,700 tigers being held in factory-style tiger farms across Thailand. Fewer than 223 tigers remain in the wild in the country.

CHANGE MAKERS: REASONS FOR HOPE
CATEGORY WINNER

In this photo, a baby loggerhead turtle (*Caretta caretta*) is offered its first-ever jellyfish as part of a rescue programme set up in Valencia, Spain. At the Fundación Oceanogràfic, a crew of veterinarians and biologists work to raise the baby turtles hatched over the summer from nests dug on beaches crowded with tourists, with the hope of giving at least some of them a chance of survival. During this period, the turtles are fed a balanced artificial diet to encourage their development, as well as farmed jellyfish to train them for their future life when they are released back into the wild. Unfortunately, once they are back in the sea, there's no real chance for the young turtles to learn the difference between drifting plastic and real food; no matter how dedicated these rescue efforts are, there's no guarantee that they will be successful.

| Angel Fitor
Training Day
Baby loggerhead sea turtle
in a recovery centre, Spain, 2022



INTO THE FOREST CATEGORY WINNER

During the mating season, male stag beetles (*Lucanus cervus*) go into a frenzy, with lively but harmless clashes, in which bigger males often have the advantage over smaller ones due to their impressive mandibles. Longer larval development and genetic traits can increase the size of some individuals, but all saproxylic beetles are threatened by poor forest management, logging and dead wood removal to 'clean' the forest. Many endangered species, including stag beetles, appear on Italian conservation organisation red lists. These two males photographed in a forest near Florence were engaged in a very brief duel on an oak branch. Since peak activity in stag beetles lasts only a few days each year, I had to wait patiently, dedicating about ten days of observation to capturing this moment.

Iacopo Nerozzi
Clash of Kings
Combat between two male
stag beetles, Italy, 2022





| Galice Hoarau
Jellyfish and Iceberg
Lion's mane jellyfish, Greenland, 2019

POLAR WONDERS CATEGORY WINNER

Diving around icebergs is a unique and fascinating experience. During a dive near Tasiilaq, we were fortunate enough to find a massive iceberg stranded just off the coast, offering us a rare opportunity to safely explore its surroundings. The stark contrast between the deep blue water and the glistening white ice offered a mesmerising backdrop for underwater photography. Autumn in the East Greenland fjords is teeming with life, especially planktonic species ranging from tiny copepods to large jellyfish such as this lion's mane jellyfish (*Cyanea capillata*) with its long stinging tentacles drifting elegantly through the water. The icy waters combined with the vibrant marine life created a magical atmosphere for the dive, making it an unforgettable experience.



PUBLIC AWARD 2025

HONOURABLE MENTION IN THE CHANGE MAKERS:
REASONS FOR HOPE CATEGORY

Fernando Faciole
After the Flames, Hope
 Tapir saved from fire, Brazil, 2024

This tapir (*Tapirus terrestris*) was named Valente, which means 'brave' in Portuguese. He was rescued in the Pantanal with severe burns on all four legs and his ears, unable to move. The approximately one-year-old male was saved by the Onçafari project team operating in the Caiman Ecological Reserve. After undergoing intensive treatment to heal his injuries, the goal was to eventually release him back into the wild. Valente survived one of the largest fires ever recorded in the Pantanal biome. In 2024, more than 2.6 million hectares, or 17% of the biome, burned. According to a study conducted by ArcPlan and supported by WWF-Brazil, the region is experiencing a dramatic reduction in water coverage, with satellite imagery showing an 82% decrease in areas that have typically remained flooded for six months of the year or more since 1985.

STUDENTS' CHOICE 2025

HONOURABLE MENTION IN THE INTO THE FOREST CATEGORY

The world's tiger population has declined by 95% over the last hundred years, mainly as a result of deforestation, which is drastically reducing their territory, and poaching. In Indonesia, the sub-species on the islands of Java and Bali have become extinct, and only the Sumatran tiger (*Panthera tigris sumatrae*) remains, with fewer than 400 individuals left in the wild, according to the World Wildlife Fund (WWF). In 2009, Sumatran tigers were classified as 'critically endangered' by the International Union for Conservation of Nature (IUCN), and the Indonesian Government made them a priority species for protection.

| Bambang Wirawan
Forest Guard
Sumatran tiger, Indonesia, 2021



“Beauty is the neutral universal language I choose to embrace.”



Since the 1980s, Angel Fitor has worked on projects for prestigious clients such as National Geographic, Smithsonian, GEO, UNESCO and Netflix. His work has received awards at the most influential photography contests of our time, including World Press Photo, Wildlife Photographer of the Year, American Photography and Sony World Photography. In 2021, he was named European Wildlife Photographer of the Year by the German Society of Nature Photographers. The same year, *Forbes Magazine* ranked him 7th out of the 50 most awarded Spaniards.



INTERVIEW WITH ANGEL FITOR

A Spanish photographer with a lifelong vocation for the natural world, Angel Fitor combines the art of the image and composition with a solid academic background in marine biology. A firm believer in the power of photography to build public awareness and empathy, he has committed his life to giving a voice to aquatic ecosystems.

Here, the winner of the Prince Albert II of Monaco Foundation's Environmental Photographer 2025 Grand Prize, as well as the Ocean Worlds and Change Makers: Reasons for Hope categories, with two other underwater photographs shortlisted, discusses his work documenting the living world with humility and sensitivity.

Where does your passion for the ocean and freshwater ecosystems come from?

My oldest memory dates back to when I was three. I remember my grandfather floating an old diving mask in a rock pool in my hometown, so I could see a small crab clinging to a clump of algae. It was astonishing. I'd ever seen under water like that! Somehow that decided my path and ever since I have built my life around aquatic life using photography as a vehicle for that early passion.

Highlighting the beauty of nature is at the heart of your work. Why did you choose to do that?

Documenting the bright side and the dark side of human activity on the environment has the potential to change some harmful behaviour, but it also unavoidably introduces a political element that I deliberately choose not to focus on. When addressing a global audience, I assume most people aren't trained or informed to understand the complexity of the natural world and its relationship to humans. In that context, even a well-meaning image may lead to the wrong actions. As an independent artist, protecting my creative freedom comes first, so I prefer to keep politics aside, even when I'm aware that's almost impossible to do in my field at times. Nature has always been valued by humankind on the basis of the products and services harvested from it. The true environmental revolution will only come when we understand that the value of the natural world resides in itself, not in our benefit from it. Beauty is the neutral universal language I choose to embrace to pursue that utopia. It was the sheer beauty of nature that brought me here after all.

Underwater photography is particularly appealing because it reveals a world that is hidden from the general public. How do you choose your subjects?

In my view, less is more. Generally speaking I prefer working on local subjects so the need for travel and logistics doesn't compromise my beliefs, budget and ethics for photography. It doesn't matter to me if the subject or location is very commonplace, I like creating photography in the most classic sense. First and foremost I value the craft of photography – elevating, revealing, creating, seducing, rethinking and provoking. Those are the primary goals in my photography, regardless of the subject.

What are the main technical difficulties in this environment?

Working underwater imposes serious limitations that play a decisive role in shaping the final photographic outcome. Most technical issues can be solved through knowledge, training and financial resources; human physiology issues can't be. I think of time as the raw matter of serious nature photography, both above and below water. I think diving's inherent time constraints – even using the latest diving technologies – represent the greatest disadvantage for underwater photography compared to other types of photography.

Which photo or series has made you proudest in your career?

I work all over the ocean using very different approaches – from a studio-lab for plankton work and a liveaboard for fisheries to underwater photography for natural history, of course – so it's hard for me to say which body of work is my favourite. Having said that, as a naturalist, animal behaviour photography occupies a special place in my heart. It is often described as the most extreme form of wildlife photography because of the high degree of commitment it involves. Dedicating months or years to pre-production and field work for a bunch of pictures of animals doing their thing may seem foolish, but it forces me to immerse myself in a sort of intimate communion with my subject that is addictive and very spiritual. In addition, if the result of all that effort provokes awe for, and awareness of, the miracle of life around us, then it stops being foolish and becomes meaningful. The winning picture of the Environmental Photography Award 2025 falls exactly within that category.

You work a lot in the Mediterranean, the most polluted sea in the world. What do you think of its current condition?

There are many Mediterraneans. I discovered that while sailing and diving around it for more than three decades. My local waters off the Spanish coast are deeply impacted by overfishing, urban development and increasingly by the tourism industry. In such places I'm unable to recognise my grandfather's stories of a sea inhabited by seals and sharks. In my daily work in my local waters, I sometimes see myself as a treasure hunter walking on a landfill site. On the other hand, a small number of marine protected areas in the northern Mediterranean, spots off the African coast and some remote offshore patches of sea still retain the glory of a pristine Mediterranean that has mostly disappeared nowadays. There are seeds of hope here and there, but since the Sea is an interconnected system, we still need a strong multilateral approach to recover an ecologically functional Mediterranean.

| An Atlantic white-spotted octopus over the seabed in search of prey and a cloud of plankton attracted by the red lights during a night dive.

| Almadraba fishing in the Mediterranean. Although it is a traditional technique, most of the catch will be discarded as dead or dying bycatch.

“In my daily work I sometimes see myself as a treasure hunter walking on a landfill site”.





| A male sea sapphire –
a tiny planktonic
crustacean –
contained in a droplet
of seawater under
the microscope.

In your opinion, what role can photography play in the emergence of new ecological narratives?

These days I think it's a double-edged issue. A narrative that's too environmentally driven risks being politicised. Only a relatively small section of the public is sensitive to that, while the rest are superficially influenced by shallow, trendy media content pushing stereotypes of the natural world that trivialise its relevance. Delivering pure natural history to the public provides both knowledge and fascination, which in my opinion are the foundations of a neutral, solid, long-term awareness of the natural environment. I firmly believe good science is the one and only guide for successful long-term conservation initiatives, with photography being a powerful tool at its service. Photography has already proven its power to alter the course of history by highlighting one-off issues, but we would be deceiving ourselves if we lost sight of the fact that all environmental issues are ultimately rooted in our species' global development model.

What are your upcoming projects?

I am currently developing projects in the Mediterranean Sea and the African Great Lakes region for a variety of media outcomes.

| A mating pair of long-
snouted seahorses
tighten their bond prior
to spawning in the
Mediterranean.



© Angel Fitor



Progressing Planetary Health

Ocean • Climate • Biodiversity

ACTING TOGETHER FOR

Preserving endangered species
Protecting freshwater ecosystems
Accelerating a sustainable blue economy
Empowering younger generations



Since 2006, the Prince Albert II of Monaco Foundation has been committed to improving the health of our planet by implementing practical solutions to protect fragile ecosystems and foster a more equitable and sustainable model of society. IMPACT magazine contributes to this effort by offering inspiring, accessible stories to help us better understand today's challenges and reimagine tomorrow. www.fpa2.org