### IN THE SPOTLIGHT

### Taking on the global water crisis

Sources

www.futura-sciences.com www.carenews.com www.futura-sciences.com/sante www.futura-sciences.com/sciences

Water shortages - particularly in cities - will only worsen in the decades to come if international cooperation is not strengthened. So states the latest edition of the **"UN World Water Development** Report", published on 22 March, on World Water Day. In this report, **UNESCO** and the **UN-Water** highlight the fact that two billion people (i.e. 26% of the world's population) do not have access to safe drinking water, and that 4.6 billion people (46%) lack access to safely managed sanitation. Currently, between two and three billion people experience water shortages during at least one month a year. Due to rapidly growing urbanisation, the urban population facing water scarcity is expected to double from 930 million people in 2016 to 1.7 or even 2.4 billion people by 2050. For UNESCO and UN-Water, the risk of a global water crisis is imminent.

Yet, the volume of water on Earth is not changing. Instead, it is unevenly distributed: some regions lack rainfall while others experience floods. And accessible freshwater remains a rare commodity. Representing only 0.7 % of our global water **supply** (the rest being salt water or inaccessible), its distribution highlights enormous disparities: a Brazilian has 233 times more water than a Libyan. The UN Water Conference, held in New York from 22 to 24 March, brought together more than 6,000 decision-makers and government representatives, and reminded us that water is, above all, a matter of survival. It is vital to produce the plants that feed us and the livestock we eat. And in order to maintain this production, large quantities of water are required. It takes one tonne of water to produce a single kilo of grain and 13 tonnes of water to produce a kilo **of beef.** This water consumption embedded in the production of food is called "virtual water". It is estimated that a French person who eats meat consumes 4.000 litres of virtual water per day, or 1,500 if they are vegetarian. It is also estimated that the 10 million tonnes of wheat imported by Egypt represent 10 billion tonnes of virtual water, i.e. the same amount of water that runs through the Seine every year.

While sustainable water policies are beginning to be implemented throughout the world, they will increasingly gain traction thanks to the SWOT satellite. Launched in December 2022, this satellite is jointly developed by NASA and the CNES (French Space agency), and will "revolutionise our understanding of our planet's water cycle", indicates Annick Sylvestre-Baron, CNES programme manager. Equipped with an altimetre, this satellite will survey freshwater stocks, assess their flow, estimate their availability and measure change over time. As such, it will help improve water access and sanitation policies, allowing us to confront the imminent global water crisis.



## Sisu – the Finnish secret to happiness?

Source

www.lepoint.fr

According to the UN, Finland is the happiest country in the world, far ahead of France, which is ranked 20th. This title is in part due to the lifestyle led by the Finns - who spend time in nature and who have a sauna at home - but also because they develop their sisu. This term is simply untranslatable. It refers to one's capacity to show willpower, resilience and determination when faced with hardship. It is a state of mind and "it is also a way of life, a form of rustic sobriety, a desire for frugality", explains Katja Pantzar, author of Les Finlandais sont des gens heureux [The Finns are happy people]. In other words, it's a genuine strength, even a "mental capacity" that each person can develop by reinventing or challenging themselves, or simply by choosing to walk instead of driving.. It's up to each person to find a way to strengthen their sisu.

### Montpellier tests a citizen food fund

Source

www.lemonde.fr

Backed by the City of Montpellier, the "Territoires à vivre" collective launched the first trial of a "common food fund" in France at the beginning of February.

The idea is that **each participant contributes between** €1 to €150 per month (according to revenues) in exchange for a food voucher of 100 euros per month, **usable in approved shopss** (cooperative supermarkets, socially-committed grocery shops, farmers' markets, etc.). A "citizen's committee" comprising 47 members (half of whom are in a state of financial insecurity) gets together every two to three weeks to define the scope of the fund and the terms of contribution. "This is not a project aimed at fighting against food insecurity in the strict sense of the term. Rather, it is a project for food democracy [to get people thinking] about food, the world we want, social ties, landscapes, biodiversity", explains Nicolas Bricas, researcher at CIRAD (French agricultural research and international cooperation organization), who is monitoring the project. Over one year, nearly 300 people will test the programme, potentially allowing it to be extended throughout all of Montpellier.

Source: www.lesechos.fr

### START-UP OF THE MONTH

Pili decarbonises the colour industry Today, 99% of colours are produced using fossil resources. In order to reduce the environmental footprint of this industry, the start-up Pili – located in Toulouse and Paris – has developed a virtuous process that combines industrial fermentation and green chemistry to produce bio-based pigments and dyes without the use of oil. Initially, Pili chose to produce indigo (used on jeans), which represents a global market of approximately €500 million a year. The start-up aims to cut CO2 emissions linked to the production of this colour in half. In order to industrialise its production of bio-based indigo, the start-up raised €14.5 million with the help of Bpifrance, Famille C Participations and its existing investors.

### **TECH & INNOVATION: INTERNATIONAL**



For several years now, the Indian Space Research Organisation (ISRO) has been developing a reusable spacecraft (Reusable Launch Vehicle Autonomous Landing Mission, RLV LEX) aimed at transporting satellites. To test its capacity to land in full autonomy, this spacecraft was dropped from a height of 4.6 km from a helicopter. Thanks to an autonomous GNC (Guidance, Navigation and Control) system, the vehicle controlled its descent and landed like an aeroplane with a speed (350 km/h) and angle of incidence consistent with a return from orbit. This is a monumental technological achievement considering the complexity of developing a GNC system.

In a makeshift laboratory on the outskirts of Nairobi, two cousins, Moses Kiuna and David Gathu, built their first prosthetic arm in 2012 for a neighbour who was injured in a work accident. Since then, the duo has made several modifications and created a **bionic prosthetic arm from electronic waste found in landfills.** 

Their first prototype uses a helmet that captures brain signals in order to convert them to electric currents, which are then sent to a transmitter that wirelessly relays commands to the arm.

Self-taught, the two men in their thirties learned neurophysiology on their own by reading and conversing with doctors. In addition to their bionic arm, they have also invented a device that sterilises bank notes, as well as a green energy generator, which converts oxygen into electricity.





In order to provide support to the Wayúu community and, more generally, to all people who do not have access electricity, the Columbian start-up E-Dina has designed a portable lamp that converts salt water into electricity. Named WaterLight, this lamp contains magnesium and copper plates that, upon coming into contact with salt water, create electrolytes which release ions and thus generate an electrical current. A half-litre of salt water (or urine) allows the lamp to immediately produce electricity for 45 days, 24 hours a day. This fully-recyclable wooden lamp has a perforated nozzle to release hydrogen gas from the mixture, and a USB port to **charge phones.** It has an estimated lifespan of approximately 5,600 hours, equivalent to two to three years of use.

### **ENVIRONMENT**



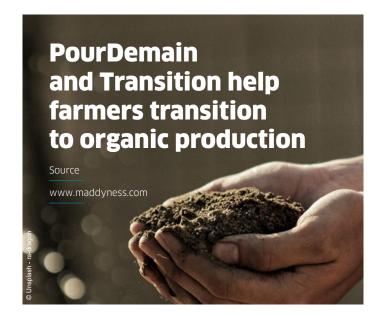
With the Intergovernmental Panel on Climate Change (IPCC) publishing its sixth summary report to help decision-makers make the right directions, here are the key findings from the previous reports. According to experts, there is no longer any doubt: humans are responsible for global warming. The Earth's temperature has risen by 1.2°C compared to the pre-industrial era (a 1.5°C threshold will therefore be very difficult to maintain). Moreover, 70% of all land on Earth is exploited by humans, therefore limiting the capacity of ecosystems to mitigate the effects of global warming. Oceans, which represent the largest carbon sinks, are becoming increasingly warmer and rising sea levels threaten 10% of the world's population.

Finally, the reports indicate that it is possible to reverse the curve of global CO<sub>2</sub> emissions by 2025 with the increased adoption of agroecology, renewable energy sources, sobriety and fewer fossil fuels.

Created by **Ekimetrics**, a **French firm specialised in artificial intelligence**, **Climate Q&A provides both the general public and journalists with answers backed by sources on questions relating to the environment**. This new chatbot eliminates the need for tedious searches by selecting the most relevant extracts from eminent scientific reports, including those of the Intergovernmental Panel on Climate Change (IPCC), the IPBES (the "IPCC of biodiversity") or the International Energy Agency. **It also cites the source and page of the report to which it refers.** Still in its trial phase, the tool nicknamed **"IPCC-GPT" nevertheless raises some criticisms.** Valérie Masson-Delmotte, co-chair of IPCC Working Group 1, points out that the tool does not take into account footnotes, which sometime contain key information. She also highlights the fact that sources other than the IPCC are consulted, thereby providing contradictory results.

### Climate Q&A, ChatGPT for the climate



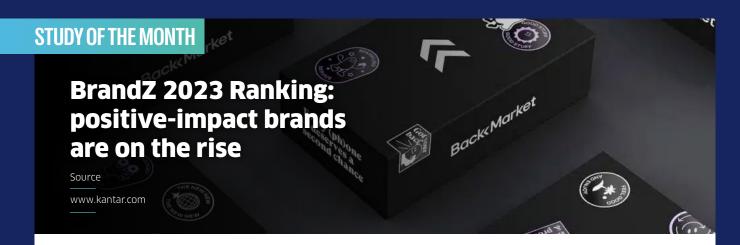


The Lille-based start-up, which owns the PourDemain and Transition brands, has just raised €4 million through two new impact funds (Avelana, Finorpa), its existing investors (Makesense, Nord France Amorçage) and 324 citizens seeking to change our consumption and production methods. Launched four years ago, the company intends to continue providing support to farmers in their transition to organic production.

It should be noted that this switch takes on average two to three years, during which farmers are required to increase their investments without any financial return. To help them during this difficult stage, Transition and PourDemain sell the farmers' products in organic shops and supermarkets, ensuring fair remuneration. Over four years, that start-up has provided support to 390 producers in the conversion of 10,625 acres of land. Thanks to this new round of funding, it should be able to support 3,500 additional farmers by 2025.

Without bees, there would be almost no fruit or vegetables. Responsible for 80% of the pollination of plant species, bees play a vital role in the preservation of our ecosystems. At a time when 30% of bees have disappeared in Europe, Guerlain – whose logo is a bee – has created 15 partnerships and initiatives in order to protect bees and biodiversity. In 2010, Guerlain was looking for a high-quality honey for its Abeille Royale range, and thus entered into a long-term partnership with the Brittany Black Bee Conservatory (ACANB), which produces high-quality honey in one of the world's purest ecosystem. Since then, the brand continues to show its commitment, in particular through the Bee School programme, which generates awareness among young people, as well as the Women for Bees project, which helped train a hundred or so women beekeepers in partnership with UNESCO.





According to the Kantar BrandZ Top 50 2023 Ranking, the cumulative value of the 50 most powerful French companies has increased by 30% since 2021, reaching \$424 billion.

This growth is driven by the **luxury** and cosmetics sectors, with:

- Louis Vuitton ranking first (+72%)
- followed by Hermès (+48%),
- Chanel (+30%),
- L'Oréal Paris (+17%)
- and Lancôme (+22%).

Elle s'explique également par le **dynamisme de marques comme :** 

- Société Générale (+40%),
- ENGIE (+31%),
- Sephora (+29%),
- AXA (+21%)
- and Crédit Agricole (+21%) which benefit from a better image among consumers.

This ranking also highlights the fact that sustainability and regenerative economy have become important criteria in a brand's value, as witnessed by the growth of Société Générale, the first bank to systematically implement ESG criteria into its company valuations.

In this 2023 edition, six new brands (some returning) have been listed on the ranking due do their commitment to society, environment and staff:

- FDJ,
- Canal+,
- · Back Market,
- Guerlain.
- Air France
- and Martell

#### For Anne-Lise Toursel,

Head of Brand Guidance, Media & Creative, Kantar Insights France: "Developing brands over the long-term is a genuine lever for growth.

To uphold this momentum, French brands have to adopt a mindset
centred around regeneration."

## The Junior-Enterprises Movement launches its RS-Score

Source

www.mondedesgrandesecoles.fr



Established within more than 200 higher-education institutes, Junior Enterprises carry out more than 3,600 studies for companies of all sizes, from VSEs to major corporations. In order to guide these companies through their transition, the Junior-Enterprises Movement has launched, in conjunction with its CSR Committee and the AgroParisTech Junior Enterprise, an innovative tool to assess the CSR impact of the studies carried out. The RS-Score is similar to the Nutri-Score: based on 17 of the UN's sustainable development goals, the tool provides a score from A (highest) to E (lowest) for a given project. It therefore allows to inform stakeholders and customers of the social and environmental impact of the work they carry out, to help them improve the impact of their work and to identify the main levers on which to act in order to improve their work.

#### **ENGIE**, premium partner of the Junior Enterprises

Since 2015, ENGIE provides support to Junior-Entrepreneurial students to develop skills and organises workshops and training sessions on some of the company's core topics, such as strategic management, recruitment or even CSR.

A new trend is emerging in the corporate world. "Conscious quitting" refers to the act of leaving a company because you do not share the same social and environmental values. According to a study carried out by Opinium on 4,000 British and American workers, half of them are considering quitting their company due to misaligned values, whereas 33% have already taken this step. This trend is particularly strong among young people, i.e. generation Z, who are very sensitive on environmental, equal pay and social equality issues.

According to Paul Polman, former CEO of Unilever, **conscious quitting represents a** "ticking time bomb" for companies. As such, he also advises companies to **carefully rethink their business model so that they are profitable, sustainable and responsible.** 





According to the *Emploi et Formation du Centre Inffo* barometer, published 27 March 2023, **nearly half of all workers are considering changing jobs and 35% aim to do so in the following two years.** Nearly as many workers **(49%) wish to follow a training course within 12 months.** The survey, which was carried out on 1,607 French people, also points out that **69% of workers believe that they must adapt their skills to future labour market needs.** This figure is at **80% for those aged between 18 and 24.** 

Finally, nearly half of all workers are considering a career change in the next five years, and 21% have already begun the process. This being said, only 58% of workers are supported in this task.



## Lura Health has created a dental chip capable of detecting disease

Source

www.lepoint.fr

Specialising in health, the US company Lura Health has developed a microchip that attaches to a tooth to analyse saliva in real time and detect diseases.

Equipped with a long-lasting battery and Bluetooth, this device allows patients to be alerted should they have any health issues. According to Lura Health, more than 1,000 diseases can be diagnosed via saliva, allowing to create a much more comprehensive health check alternative to blood tests. Currently, the innovation is still waiting on Food and Drug Administration (FDA) approval before launching its clinical trials.

# Cynotherapy: the soothing and healing potential of dog-assisted therapy

Sources

www.woopets.fr https://curie.fr/actualite

The School of Huttenheim (Bas-Rhin department) has recently introduced an Australian shepherd in a classroom of children with autism. And the benefits are evident. The dog's presence helps the students relax, save time, gain confidence, improve motor skills, and work on new skills. Similarly, cynotherapy (or dog-assisted therapy) is also being tested at the Institut Curie. An English Setter was brought into the care unit last December to help relax patients in the waiting room or in consultation, to visit patients before a high-anxiety treatment and to reduce staff stress. While the dog has already become a vital presence for the staff and patients alike, a study is currently underway to analyse the effects of its presence.



### **DID YOU KNOW?**



# The Cycle Zéro app allows you to recover free construction material

www.wedemain.fr

Practically-new radiators, surplus insulation, windows in very good condition, etc. The Cycle Zéro app allows you to recover "waste" from construction sites for free, allowing work to be carried out at a fraction of the cost. Moreover, it allows site managers to save on the cost of a skip (€600 to €800). Thanks to this app, Cycle Zéro tackles waste head on. An excellent initiative considering that in France, 68% of waste is linked to construction.



### In Denmark, empathy is taught at school

https://congres.innovation-eneducation.fr

From six to sixteen years of age, Danish students dedicate one hour a week to develop empathy.

Mandatory since 1993, these courses teach young people to put themselves in other people's shoes and to perceive what others may feel. There are several goals in mind: fostering greater communication skills, combating prejudices as well as bullying at school.



# The BRICS currency to compete with the US dollar

https://fr.apanews.net

The BRICS nations (Brazil, Russia, India, China and South Africa) aim to create a new currency in order to compete with the US dollar as the default means of international settlement. This currency is likely to be digital, and may potentially be backed by gold or other metals with similar properties.

