# TRENDS SHAKER

Newsletter #51

The monthly newsletter for socio-cultural trends

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#### **ON THE SPOTLIGHT**

## Towards a large-scale circular economy

The energy crisis has accelerated the transition, and the time has come for **energy sobriety.** The challenge now is to move from an enforced, limited sobriety to a **deliberate, ambitious sobriety.** Aside from the (essential) energy-saving measures, this means adopting a **largescale circular economy model** and applying it to as many economic sectors as possible. In concrete terms, this makes it essential to use **stronger, more durable materials to** 

extend product lifetimes. It also requires the end of each product's life to be considered from the design stage, lagain to extend its lifetime but also to increase the number of times each product can be used. Incorporating economically viable circular models thus involves major changes to operational processes in traditional industries, especially as certain sectors will transition from a production model to a service model based on an ecosystem of brand-new partnerships. The move to a global circular economy also requires strong commitment from business leaders and governments, which may make circular economy arrangements mandatory in certain sectors.

It is a significant challenge, but the results will be worth it. There are a vast array of as-yet largely unexplored opportunities to **reuse, repair or remanufacture products or recover their components,** which can become sources of supplies higher up the production chain.

According to the European Commission's new circular economy action plan, the circular economy could generate €10 billion in revenue by 2030 and create 700,000 jobs in Europe.

With their keen interest in the environment, **young French designers** have taken these circular economy principles fully on board. In their work, **waste is becoming a source of raw materials, and even of inspiration.** 

For example, the three designers at **Woolstock** are transforming shearing residues from sheep reared in France into packaging panels made of felted, thermo-compressed wool. Ana Saint Pierre is using construction site rubble to make floor coverings and mineral frescoes. Meanwhile, the two designers at **Perron et Frères, use wood offcuts to produce furniture without the use of glue, nails or screws.** 

All these designers have won awards for their **frugal innovations**, which invite both design schools and manufacturers to evolve.

#### Sources:

https://www.lejdd.fr/Economie https://www.hbrfrance.fr/chroniques-experts https://www.lemonde.fr/m-styles https://www.lemonde.fr/m-styles/article/2022



#### **TECH / INNOVATIONS**

#### Lhyfe accelerates the development of green hydrogen

Sources https://www.futura-sciences.com https://www.capital.fr/entreprises-marches This is a world first. Lhyfe hast just opened the **first pilot site for green hydrogen production at sea** near Saint-Nazaire.

Baptised Sealhyfe, this floating platform connected to a wind turbine (also floating) should produce 400 kilograms of green hydrogen per day at a price rivalling that for grey hydrogen (produced from hydrocarbons) and fossil fuels.

At the same time, Lhyfe has signed a partnership with **Gaussin**, a specialist in zero-emission smart transport for freight and passengers. **Their goal is to accelerate the development of hydrogen-powered mobility at ports, airports and logistics sites.** They will work together to examine the possibility of developing a global renewable mobility solution combining Gaussin's hydrogen-fuelled vehicles with green, renewable hydrogen produced by Lhyfe.

Founded near Toulouse in 2016, and a winner of the French Tech Agri 20 programme, **Micropep Technologies**, **develops organic crop protection treatments.** The company uses **micropeptides**, **proteins produced naturally by plant cells** that have an enormous range of potential applications, from nutrition to crop protection, to create an **environmentally friendly alternative to pesticides.** "We have developed a unique platform enabling us to identify the most promising micropeptides quickly, produce them organically for a competitive price and select the ones that are compatible with the formulations and applications commonly used in agriculture," explains Thomas Laurent, one of Micropep Technologies' three cofounders.



## Michelin to launch tyres made with 45 to 58% biosourced or recycled materials

Source\_\_\_\_\_\_https://journalauto.c

At a time when all manufacturers are trying to develop more environmentally friendly tyres, Michelin has unveiled two tyres, one for cars and one for buses, respectively containing 45% and 58% biosourced, renewable or recycled materials.

To achieve this result, the Clermont-Ferrand group has used more **natural rubber** and incorporated **recycled carbon black, silica from rice husks and recycled steel.** "What's really important is not so much the percentage of sustainable materials we use in these tyres, but the global environmental impact of their production," declares Cyrille Roget, the manufacturer's director of scientific communication and innovation. Hence the idea of **sourcing, recovering, processing and transforming materials as locally as possible.** Already approved for road use, the two tyres should hit the market within two or three years.

#### SOCIETY

## Low tech for energy sobriety

#### Sources

https://www.lesechos.fr/idees-debats https://start.lesechos.fr/innovations-startups



Unlike the complex technologies of the connected society, low tech involves simple solutions that are easy to use and consume little energy. It thus has a role to play in Europe's commitments to carbon neutrality by 2050. And innovations are proliferating. Examples include the ingenious solutions of engineer Corentin de **Chatelperron** such as the self-assembly solar oven and the desert fridge made of earthenware, sand and water, and then there is the ship Plastic Odyssey, launched by two young entrepreneurs and equipped with a machine that can transform 30 kg of waste per hour into 30 litres of fuel using pyrolysis (chemical breakdown due to the action of heat). Low tech is gaining ground in engineering schools and the start-up world. For instance, the startup Unéole has invented a silent mini wind turbine made with recycled materials, which it installs on the roofs of buildings. Combined with solar panels, its low-tech solution can cover a large proportion of local energy needs, depending on the wind conditions.

#### **START-UPS OF THE MONTH**

#### Captain Cause facilitates corporate donations to good causes

Frédéric Mazzella, the founder of BlaBlaCar, has come together with four other people (Georges Basdevant, Maxence Mathey, Clara Pigé and Nathanaël Romano) to create Captain Cause, a platform that orchestrates corporate donations to associations. "On one hand, there are so many voluntary projects that are terribly short of resources, and on the other, companies with big budgets," observes Frédéric Mazzella. The start-up handles all the administrative, technical and payment aspects via the fintech company Mangopav. It also takes care of filtering the associations, prioritising local projects focused on the long term and having a real impact in the area. Associations can reject donations if the companies do not align with their values, because "it's a tool for engagement, not communication," as Frédéric Mazzella explains. The platform does not so far offer subscriptions, instead invoicing individual transactions. It recently benefited from a €3.5 million fundraising programme conducted with partners including OneRagTime and MAIF Impact.

### Mökki, 44,000 m<sup>2</sup> in the heart of Paris where you can sell, recycle or donate your clothes

What can you do with all the clothes cluttering up your wardrobe without hours of time-consuming work? To answer this question, Tamara Birsk created Mökki, a 44,000-square-metre space in the fourth arrondissement of Paris where you can take clothes you want to sell, donate or recycle. The promise is an end to online sales and all the wasted time that goes with them. It's all wrapped up in ten minutes, and the service is free. In concrete terms, Mökki's staff sort the clothes. Anything in good condition is resold (at 5 to 30% of the new price). Clothes in adequate but not saleable condition are donated. Finally, underwear and garments in poor condition are recycled directly (the material in torn tights, for example, is almost entirely recycled). The start-up works with over 400 partners in the secondhand ecosystem, such as Vestiaire Collective, who deal with donations, recycling and the resale of the clothing collected.

#### BRANDS

#### Source

www.thenextgenenterprise.com https://www.influencia.net



### Decathlon tests a new Netflix-style model

In the traditional retail model, outlets tend to sell as many new products as possible, with no concern for their life cycle. But **new models are emerging that are less dependent on possession and more focused on use and functionality.** Decathlon, for example, has launched a **trial in Belgium.** The brand is offering families **Netflix or Deezer-style packages in which they can use its products without having to buy them.** For €25 per month, a customer can use up to €400-worth of Decathlon equipment simultaneously, €1,000-worth for €50 per month or €2,000-worth for €95 per month. The estimated profitability potential is nine to twelve times higher than the current model, enabling the brand to offer lower prices, higher-quality products and new services. According to Luc Teerlinck, founder of We Play Circular at Decathlon Belgium, "the higher the quality of the product, the longer its lifetime and the lower the price we can offer." To roll out the new model across Belgium and France by March 2023, **Decathlon has signed a partnership with CircularX**, a platform that manages online product returns and reconditioning.

#### In Denmark, 80% of the population knows first aid. In France, the figure is only 34%.

To help France catch up, Groupama launched a **free** training programme called *Les Gestes Qui Sauvent* (actions that save lives) in September 2021 with its public relations agency, Marcel. A year after the programme's launch, **lover 50,000 people have** received training – and that's just a start. For the insurer, a leader in health and personal protection insurance, the target is to train a million French people. To achieve this, Groupama has released a TV film and a Twitter challenge to encourage as many people as possible to sign up for a course.



https://jai-un-pote-<u>dans-la.com</u>



The SNCF Foundation, which has made the environment one of its priority areas, organised the second edition of its Environment Solidarity Days on 4, 6 and 7 October 2022. In all, 850 SNCF employees, alone or in teams, devoted a working day to one of the 45 missions organised by the partner associations across twelve French regions. These included sorting donations from households at a recycling centre, recycling everyday objects to give them a second life, cleaning up coastlines, taking part in eco-construction work at a farm to give animals a peaceful end to their lives, and cultivating and laying out a shared garden whose produce is distributed to the Restos du Coeur charity.

The initiative is part of the **skills sponsorship programme**, in which each employee has ten days every year to take part in community initiatives with the agreement of their manager.

#### **PROFILES OF THE MONTH**

#### Samantha Cristoforetti

## the first European woman to command the ISS

Sources

https://www.geo.fr https://www.rtl.be

Born in 1977 in Milan, Italy's Samantha Cristoforetti studied **aeronautical engineering before becoming one** of the first female fighter pilots in the Italian air force. In 2009, she was the first Italian woman to become an ESA astronaut. She made her first trip to the International Space Station (ISS) in 2014. Speaking English, German, French and Russian, the flight engineer carried out many scientific experiments during her time in space and broke the record for the longest space mission by a woman (199 days in space!). A mother of two, the woman nicknamed AstroSam, who describes herself as "fascinated by the night sky", returned to space in April 2022, posting a stream of videos to share her daily life (her TikTok channel has 600,000 followers).



#### In September 2022, she took control of the ISS and became the first European woman to command the orbital station.

In October 2022, during World Space Week, this hardworking woman took the time to explain her experiments conducted on board the ISS to girls aged eight to eleven. The aim was to encourage them to consider careers in STEM (science, technology, engineering and mathematics).



More a realist than a pessimist, he insists that *"we definitely need a growth model that respects the planet".* 

### Arun Krishnamurthy the ecologist cleaning India's lakes

Source https://planete.lesechos.fr

Arun Krishnamurthy was just 20 when he founded the NGO Environmentalist Foundation of India (EFI) in Chennai, southern India, with the goal of cleaning India's polluted lakes with the help of volunteers. Since its creation in 2007, his NGO has worked on 180 projects in 16 states, in cities as diverse as Delhi, Ahmedabad, Bangalore, Puducherry, Kolkata and, of course, Chennai. Every year, the NGO extracts 4,000 tonnes of waste from lakes and ponds. But as the country does not yet have a mature recycling industry, the waste is buried. Arun Krishnamurthy intends to tackle this problem at its source and encourage people to generate less waste. The ecologist inspires vocations with his YouTube videos and presentations: 2,000 students take part in EFI projects across the country every year. With support for his projects from around 40 sponsors, including Rolex, Arun Krishnamurthy considers that "the growing sophistication of our lifestyles and the massive use of plastic have had adverse effects. The consequences of our rapid industrialisation and strong growth since the 1990s have been uncontrolled pollution and inadequate waste management."

#### **HR X EDUCATION**

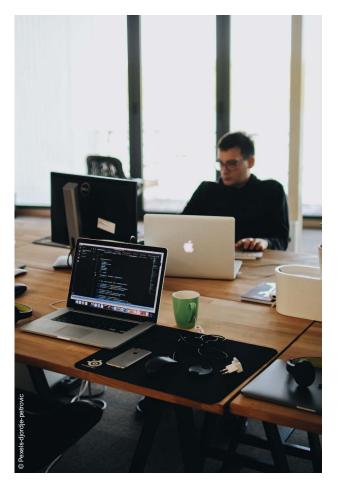
#### **Eighth edition of the Francophone trophies for responsible campuses**

Source

https://start.lesechos.fr/apprendre/universites-ecoles

The Francophone trophies for responsible campuses have been rewarding the higher education institutions with the strongest commitments to sustainable development and CSR since 2014. Of the 32 initiatives submitted to the trophies' jury, eight received awards. The trophy for "local connections" was awarded to the Neoma Business School in Roven, which has created a permaculture garden and organises handson weekly workshops open to all students. The "student commitment" trophy went to the Purpan engineering school, which has its own farm and where students have launched a plan to restore biodiversity, planting hedges and cleaning ponds to promote the resilience of agricultural systems. Then there is HEC Montreal, which received the "education for a sustainable society" award. At this Canadian business school, which teaches backcasting - a planning method that involves defining a utopia and then working on solutions tending towards it - students have been working on a project to upgrade a Montreal motorway, planting more greenery around it.





#### O'clock, the school where you can become a developer in six months

Sources

www.futura-sciences.com www.blogdumoderateur.com

O'clock is a school providing training for web careers. Open to anyone, it welcomes beginners (no prior technical knowledge is required), graduates, people retraining from other professions and people with cognitive or auditory disabilities. Each course takes place in three stages: the "base". explaining the fundamentals of development tools, the "specialisation", in which students work in greater depth on the front end (the visible part of an application) or the back end (the part hidden from the user), and finally the "apotheosis", when students put their knowledge into practice in a completely collaborative group project. An unusual feature of the teaching is that the courses are delivered as remote lectures, where the students log in face-to-face with the teacher and can interact easily. The school also emphasises dialogue and mutual support for daily progress in learning. For example, each intake of students is supported by a "helper" who makes sure noone feels they need to drop out. So far, O'clock has trained over 4,000 students, most of whom have found work in digital technology or progressed to higher education.

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#### Recruitment based on affinity to response to the shortage of candidates

Source: https://www.forbes.fr/business

For Francis Boyer, a consultant specialising in managerial innovation, it is time to change the recruitment criteria and move from a focus on ability (skills) to affinity (enjoyment). When a person does a job they like, they learn more quickly and have a higher and longer-lasting level of engagement and motivation. To formalise this new approach, Francis Boyer has created a set of 30 affinities that are all sources of fulfilment. They include challenge (overcoming obstacles), optimisation optimisation (improving what already exists), resourcefulness (showing initiative) and fellowship (creating cohesion). For the consultant, the ideal recruitment process involves first evaluating the match between the affinities of the job and of the candidate, assessing the candidate's technical abilities and then training them. French companies today face growing difficulty in recruiting and have to deal with high levels of staff turnover. For example,

- 70% of companies receive no applications at all,
- 37% consider that candidates' profiles do not have the necessary qualifications,
- 35% feel that candidates lack experience.



#### **STUDY OF THE MONTH**

## According to French consumers, companies need to increase their efforts on social and environmental issues

In June 2022, Kantar conducted a study of 33,000 consumers in 32 countries (including France) to identify the themes they see as priorities in terms of CSR and the levers on which companies need to act. This second edition of the CSR Sustainability Factor Index tells us that the French want companies to focus their efforts on employees' working conditions, child labour (which is still widespread across the world), and environmental protection. People in France, and particularly the young, expect companies to protect biodiversity, decarbonise their activities and combat pollution. The study also shows that 90% of French people want to live sustainably but cannot. This is especially true for the young. Either because companies do not offer sustainable alternatives, or because environmentally friendly products are more expensive. Finally, the study reveals that **consumers want more information** to help them distinguish sustainable products from the rest, and that brands have to make an effort in terms of education.

Sources

https://www.thegood.fr https://www.ekopo.fr





#### ARTICLE EXPLAINED BY A MEMBER OF AN ENGLE COMMUNITY

## Landslide risk is escalating with climate change

Credits: Erwin Frets, member of the Community of Practice Geological Engineering within ENGIE

Source: https://www.nature.com/articles

Landslides are a kind of natural hazard that may have dramatic consequences for people or strategic infrastructure. In the world, thousands of people die each year and billions of dollars of economic losses are attributed to landslides. The latter phenomenon occurs when gravity overcomes the resisting forces of soil or rock on a slope, resulting in the groundmass flowing, sliding or falling with devastating consequences. Landslide risk increases either when more elements (e.g. people. buildings, roads) are exposed to a dangerous slope, or if landslides become more likely at a given place. When both processes combine, that is when more elements are exposed and more landslides are likely to occur, this risk escalates dramatically, which is what this paper shows. Research in the past ten years has demonstrated a causal relationship between climate change and the greater occurrence of landslides (ten times more disasters owing to landslides in the past 50 years !). In parallel, population growth and urban sprawling -especially in the tropics- puts more people and infrastructure at risk. Safer and more resilient infrastructure for the future will thus be achieved by also integrating this increased risk of landslides.



#### **DID YOU KNOW?**



#### The Tuvalu archipelago plans to duplicate itself in the metaverse

https://usbeketrica.com

Threatened with submersion beneath the waves due to global warming, the Polynesian archipelago of Tuvalu is replicating itself in the metaverse by creating a "digital twin" of its territory. **The goal is to ensure the survival of its cultural heritage and its political status as a state.** 



Sans Les Plumes recycles fabric from Paris public transport seats to make shoes and slippers

#### https://positivr.fr

The Sans Les Plumes brand produces slippers and shoes with wedge heels by hand using fabrics destined for landfill. This gives a new life to the very strong fabrics from Parisian metro and tram seats.



#### Illuminated advertising is now banned at night throughout France

https://www.pariszigzag.fr

On 6 October, the French Official Journal published a new decree in favour of energy sobriety. It specifies that **illuminated advertisements are now banned between 1 am and 6 am throughout France**, except in airports, bus shelters, stations and metro stations.

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