

**FUN AND INTERACTIVE CHEWING GUM COLLECTOR ;  
SOLAR STATION TO RECHARGE 12 PHONES SIMULTANEOUSLY...**

**POLLUTEC PRESENTS A SELECTION OF INNOVATIONS THAT AFFECT OUR DAILY LIVES  
TO BE (RE)DISCOVERED FROM OCTOBER 12 TO 15, 2021  
AT EUREXPO LYON**

**Chewing gum collector, of course, but also: soles air-conditioned by our own footsteps with no carbon footprint, on-demand air transport system, .... Here are some of the nuggets to discover at Pollutec, the international trade show for solutions for the ecological transition organized by RX France**

**A true catalyst for innovation in the environmental sector, Pollutec, held every two years in Lyon, is an epicenter of reflection and innovation, some of which have direct application and benefits on our daily lives.**

**Here's a closer look at the 2021 selection, which includes some great nuggets.**



**Ecophyse, through its Happyloop brand, has created HappyGum, a fun and interactive chewing gum collector, based on the fact that it takes an average of five years for chewing gum to degrade; that chewing gum stuck on sidewalks or abandoned in nature pollutes our environment and degrades our cities, but also that behind these visible effects, chewing gum produces, according to experts, other types of more dangerous pollution. Indeed, derived from petroleum, chewing gum is also made with the same polymers that are used to manufacture tire rubber!**

HappyGum wants to be the first fun and hygienic chewing gum collector and aims, in addition to reducing or even eradicating this pollution, to raise public awareness and make the act of throwing away chewing gum fun.

The chewing gum pink equipment is made of electro-galvanized steel and its receptacle is made of stainless steel. It has two small holes sized to throw the chewing gum, a recycled plastic bag to accommodate the chewing gum and facilitate maintenance. Its size (H40 x W22 cm) allows it to be fixed anywhere on a wall (screw) or a post (clamp). The emptying is done by the bottom with extraction of the receptacle via a triangle key. The HappyGum has a capacity of about 2 000 chewing-gums. It is particularly intended for public spaces, schoolyards and playgrounds, break rooms, canteen entrances, department store entrances...

**To go even further and think about the end of life of the waste, Happyloop is currently collaborating with designers to recycle and transform chewing gums into a useful and sustainable product.**

*To discover on Pollutec > Stand: 2-G74*



**Lagazel** designs and manufactures a range of sturdy and durable solar lamps, terminals and kits for lighting, phone charging and powering small electrical equipment.

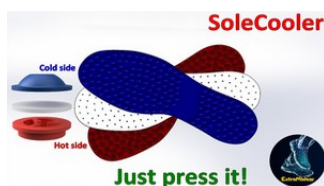
The solar phone charging station allows collective charging of cell phones. Powered by solar energy, it works everywhere, including in spaces not connected to the electrical grid.

Equipped with six racks with double 2 Ah USB sockets, the Lagazel station allows for the simultaneous charging of 12 phones. For security, a lock, with coins or tokens, protects the phone during charging. Finally, thanks to its 12Ah lithium battery, the station works as well on cloudy days as at night.



**Ideal for campsites or festivals, the solar station for charging phones, which requires no maintenance, can also be installed in any other place, public or private.**

*To discover on Pollutec > Stand: 4-E84*



**Solecooler** launches ExtreMWear, the first sole air-conditioned by our own steps without carbon footprint and intended for all those who are exposed to extreme conditions all day long: sportsmen, people working in construction or in cold stores, military, firemen but also to rescue dogs or sled dogs. How does it work? Thanks to a flexible

honeycomb material that the company has created. This innovative material produces heat and cold on the principle of the heat pump by directly recovering the mechanical environmental energy lost, which allows it to do without batteries or chemicals.

The first application with this material is therefore the ExtreMWear sole that is inserted in shoes and that, by exploiting the energy of our own steps, **keeps our feet warm in winter or cool in summer**. Very thin (less than 6 mm) and very comfortable, it consists of two thin, flexible and elastic layers: one side generates cold and the other heat. Each layer has air-filled cells that are connected by a small nozzle. When the foot is placed on the ground, the compression of the cells will compress the air towards the cells of the other layer via this nozzle, which will cause a rise in temperature (like when you inflate the tire of a bicycle, the pump heats up because of the compressed air). When the foot rises, the compressed air expands, thanks to the elasticity of the material, and will therefore cool down (like when you deflate a car tire even when it is very hot, the air comes out very cold). The cycle repeats itself as long as the person is running or walking.

**This is the first time that the principle of reversible air conditioning is applied to a flexible material using the energy produced by the sole pressure of the feet on the ground. This thermoregulation device is an alternative to existing products that use batteries or chemicals, have an operating time limited to one or two hours and generate waste.**

*To discover on Pollutec > Stand: 4-K114-4*



**Supraways** offers a sustainable on-demand urban air transport system for passengers and goods, both within the city limits and on the outskirts. **At a time when Paris and other cities are looking for ecological, sustainable and efficient solutions**, this system is a particularly interesting solution.

What is the principle? This guided system is based on **autonomous driverless vehicles that glide over the public space at a competitive speed**. Due to the organization of the guidance infrastructure into a network of interconnected loops, these intelligent vehicles **run without intermediate stops and without connections and with maximum energy efficiency** (dual electric propulsion and power from renewable energy sources). As for CO2 emissions, they are of the order of 2 g/km/passenger, ten times less than an electric car and barely more than a bicycle. It is a clean and silent transportation system.

Other features:

- the size of the infrastructure is **adapted according to the traffic forecasts of the districts**: for major roads such as ring roads or inter-urban links, two or three lanes can increase capacity and flows, whereas for less dense areas, a loop can be built in one direction.

- The Supraways networks will be able to absorb a large flow of people, greater than other surface public transport systems, thanks to the frequency of passage of the Supras\*, shared 7-seat cabins managed by an intelligent supervision system that optimizes flows in real time.
- The intelligent control system will be able to constantly reposition the fleet of vacant Supras according to demand forecasts, readjusted thanks to statistical data and the integration of real-time information. Thus, the waiting time at the station is very short because it is the vehicle that waits for the user and not the other way around.

**Supraways is the missing link in the urban transport sector in urban areas where buses and cars run in congestion, and where streetcars will never be able to arrive due to prohibitive costs or steep gradients.**

**A 50-meter prototype is to be in place by June 2022, and a 1 km test center is also planned. All this with the objective of a market launch in 2024.**

*\*Supras: Autonomous solar-powered rapid urban systems.*

*To discover on Pollutec > Stand: 4-E84*



**Uvoji** launches this year Oji Camp, a purification solution that guarantees pure and quality water on board motorhomes, vans, caravans and other converted vans.

Using a disinfection process patented by Uvoji, the solution instantly destroys 99.99% of the viruses and bacteria present in the water, without chemicals. And with an optional activated carbon filtration system, it can remove taste, odor and suspended particles.

Compact (160 mm x 119 mm x 111 mm) and light (1.4 kg), the device is easily installed under the tap or at the pump outlet. It needs 25 W to operate. It is designed for ten years without maintenance or upkeep. It just needs to be cleaned like any other device. Another optional equipment, the remote LED box allows, thanks to its two lights (red and green) to be alerted on the operating status of the device.

**This on-board solution avoids the use of plastic bottles.**

*To discover on Pollutec > Stand: 6-D118*



**Aquatech Innovation** has been deploying solutions to preserve water resources since 2018. Primarily a specialist in domestic wastewater treatment, it has also come to realize that **aquatic ponds consume considerable amounts of water for their daily maintenance**. On average, **nearly 5,000 m<sup>3</sup> of water are consumed in 100 days to clean filters, the equivalent of two Olympic-sized swimming pools directly discharged into the sewer system.**

Faced with this situation, the company developed the **AquaCleaner solution**, which **regenerates the backwash water and re-injects it into the aquatic basins, thus maintaining the quality of the city water initially used**. The process allows the **recovery of at least 80% of the water volume used for filter rinsing**. The regeneration is done by mechanical and physical processes without **any addition of chemical elements**. The entire process is controlled automatically by the AquaTech electronic control unit.

**Outside of the active periods for rinsing water, the patented AquaCleaner innovation allows the water in the pool itself to be regenerated. Water quality is also improved, significantly reducing chloramine problems.**

**AquaTech Innovation has been awarded the Greentech Innovation label by the French Ministry of Ecological Transition.**

*To discover on Pollutec > Stand: 6-D122-9*



**The Manta** is a factory boat for the collection and recovery of plastic macro-waste at sea.

An association created in 2016 by **Yvan Bourgnon**, **The SeaCleaners** is developing the Manta, an innovative vessel equipped with an onboard factory, which **will be launched in 2024**. This giant of the seas **will be the first ocean-going vessel capable of collecting and treating floating ocean waste en masse before it breaks up and penetrates the marine ecosystem on a long-term basis.**

Powered by a combination of renewable energy technologies, the Manta will minimize its carbon footprint. In this sense, it will be an ambassador of green navigation technologies that make it a **"smart ship"** and a **"green ship"**. With its hybrid propulsion, it will be able to move quickly to river mouths and estuaries, where plastic waste slicks are still concentrated by winds and currents and have not yet begun to disintegrate, or to begin their oceanic drift. It will also be **able to intervene rapidly anywhere in the world, after a natural disaster (hurricane, tsunami...), in areas of dense pollution to collect floating macro-waste before it sinks to the bottom of the sea.**



A waste-to-energy unit (pyrolysis) will be installed on board to transform the collected waste into electricity. It will be completed by recovery and treatment solutions. Some waste will be integrated into circular economy loops on land.

The Manta is the first multi-purpose vessel to fight plastic pollution and has been designed to be ecological and biomimetic. It will be able to collect between 5,000 and 10,000 tons of plastic waste per year (waste from 10 mm).

Finally, to improve knowledge and strengthen pollution prevention, a scientific laboratory on board will allow the scientific team to geolocate, quantify and characterize the waste during collection campaigns. A technical consortium composed of some twenty companies and five research laboratories is accompanying The SeaCleaners to design and develop the technological building blocks of the Manta.

*To discover on Pollutec > Stand: 6.1-B54, B56*



Mundao SAS offers compostable alternatives to single-use sanitary textiles (diapers, surgical and FFP2 masks,...) to allow a circular management of this non-recycled waste.

According to the latest media data, France throws away nearly 450 million masks per week, based on one mask worn per person per day, which seems to be a low estimate since generally, during a working day, at least two are worn. However, a surgical mask can take up to 450 years to degrade. These are staggering figures, given that these means of protection are still very rarely, or at least hardly, recycled.

**This year at Pollutec, Mundao is therefore highlighting its industrially compostable masks.**

*To discover on Pollutec > Stand: 4-F104*

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To find all the program and follow the news of the show, go to the Pollutec website:  
<https://www.pollutec.com/fr-fr.html>

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#### **About RX France**

RX France manages a portfolio of world-class, French and international face-to-face, virtual and hybrid events covering 20 industry sectors including MIPIM, MAPIC, Batimat, Pollutec, EquipHotel, SITL, IFTM Top Resa, MIPCOM, MIPTV, FIAC, Paris Photo... and many more. RX France's events take place in France, China, India, Italy, Mexico, Russia and the United States.

We serve our clients as we accompany their strategic business development and roll out the best of physical and digital events.

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