HEAD IN THE CLOUDS, FEET ON THE GROUND

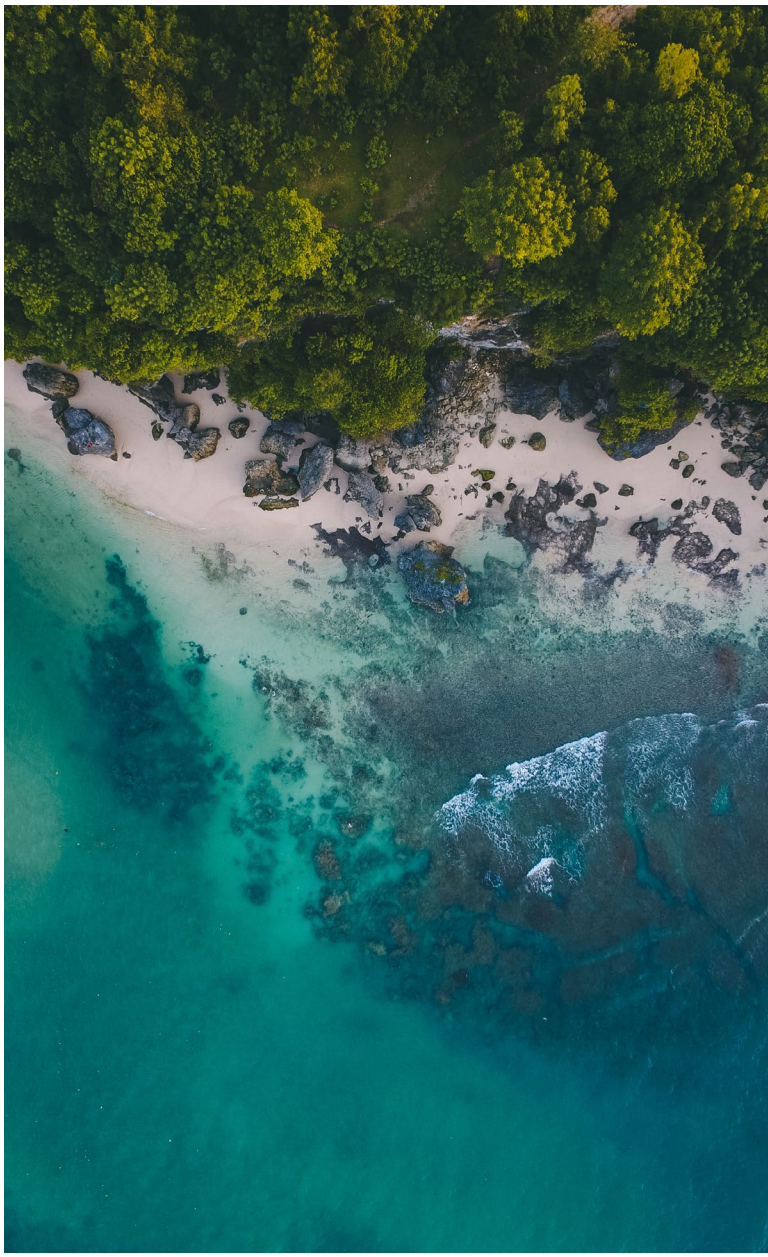
Technology has brought carbon trading practices a long way. But while being socially responsible, don't lose sight of what makes it possible in the first place, says Xarbon co-founder Jeffery Liu

Image courtesy of Xarbon

Jeffery Liu has every reason to be as cheerily confident as he comes across in person. At just 24 years old, but by no means new to the startup game (past ventures include education-tech company Snapask, among others), Liu is part of Xarbon's team of four other founding partners and one consultant, all highly specialized and with years of experience in the carbon trading and financial industries.

As we look for somewhere to sit inside the Smart Space at Cyberport, Liu quips that he has come in specially to meet us for this interview, as his role at digital carbon asset company Xarbon usually takes him out of the office to meet with investors and other stakeholders.

The operation may only be a few years old and based out of a shared workspace, but Liu is quick to stifle any suggestion that Xarbon is a typical startup. "Look at all the members on the team. Usually in a startup, you have guys coming out of university, right? Or guys who've worked a while and then start doing own thing. In our team, all the people have started their own businesses with successful liquidations," he says.



Pronounced with a C but spelled with an X ("because the domain name carbon.com was already taken"), Xarbon provides a digital trading platform for companies and individuals who want to offset their carbon emissions by trading carbon credit units. The founders believe the application of technology will make the trading of carbon credit units more transparent, more efficient and much cheaper.

A carbon credit unit is a tradable certificate or permit allowing the holder to emit one ton of carbon dioxide – or its equivalent in another greenhouse gas – into the atmosphere.

Xarbon's main source of carbon credit units (or carbon assets) is backed by a piece of rainforest in

Papua New Guinea that it owns the rights to protect. "Because rainforests grow annually at a certain rate, they act as a carbon sink, meaning they form natural systems that take out carbon dioxide from the atmosphere," he says.

After acquiring enough carbon assets (verified by the UN and other global entities), Xarbon then sells mainly to two types of buyer: Polluting companies trying to lower their carbon emissions and companies wishing to engage in CSR.

"Let's say I'm a factory in China or America or Europe and the government gives me an annual cap of how many tons of carbon dioxide I'm allowed to emit into the atmosphere. If I go over that I have to buy these carbon credits. If I don't, I get fined," he explains.

"Now let's say I am a consumer goods company wanting to create carbon-negative products. This means actively removing carbon dioxide from the atmosphere during my production process. Usually in manufacturing, that's impossible, right? Manufacturing requires emission," he says.

Not exactly. Companies can achieve this by buying carbon credit units for each product they create to offset the units of carbon emitted during production. If they buy more credits than units of carbon emitted, then they effectively become carbon-negative. But that is the next step. The first step is becoming carbon neutral, i.e. achieving zero carbon emissions during production, says Liu.

"We're trying to reduce total carbon emissions by three billion [metric tons] by 2020. That's one of our goals. And that's not just by protecting rainforest. We're also actively looking to invest … in clean energy projects — all that sort of stuff."

Tech touch

Businesses have long traded carbon credits to offset their emissions, but the knock-on benefits to their consumers have so far been limited to "feeling good about myself" and hard to quantify, says Liu.
With the help of technology, Xarbon has digitized carbon assets in their reserves (what it calls "O2O" because of its resemblance to the written chemical composition of carbon dioxide) for people to purchase and trade as assets, and to keep inside digital carbon "wallets."

So like cryptocurrency? No, says Liu. "I don't want to call it a currency because I don't think it's legal

tender. It's just a digitized way to keep track of these digital carbon units."

The trouble with the existing carbon trading process is how inefficient and fraud-prone the paperwork-intensive verification is, he says. But by digitizing the whole thing using blockchain technology ("we prefer to call it an open database technology") people can keep track of what's happening, and the trading costs also go down drastically, he says.

Time and tides

One may wonder what the reception towards Xarbon has been like so far in China and Southeast Asia, markets in which environmental sustainability hasn't traditionally been a priority for businesses. Liu explains in his characteristically guiding way:

"An American company is a lot more environmentally conscious than maybe a mainland Chinese company, right? Or a Southeast Asian company. But if you look at this from a historical and even geopolitical standpoint, think about how long China's free market has been around. It's been around for

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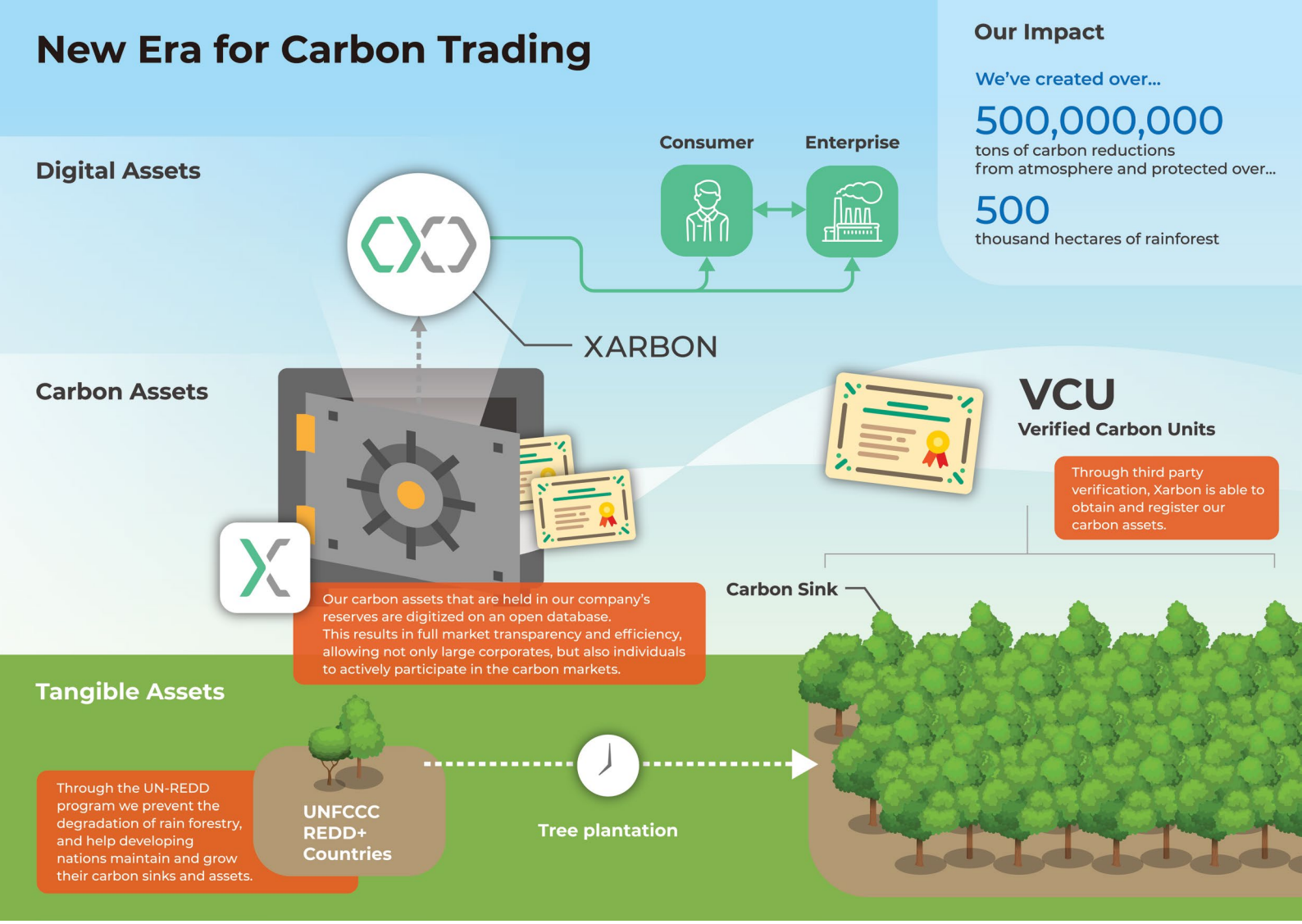

Source: Xarbon

maybe 30 years. Whereas America has had a free market of over a century, right? So this has allowed them to amass a lot more wealth to be able to afford and look after these things," he says.

When a country is poor, it's people's main concern is not for the environment. "I see this as different countries and nations being in different stages of their development... Once a country gets rich then it starts to care about all these traditional liberal values, like looking after the environment."

The bottom line

At the end of the day, Liu and his team know their investors only care about one thing: A return on their equity.

Xarbon's CSR pitch is made unashamedly in quantitative terms and goes something along the lines of "Right now, if you invest in this solar plant with us, you will get this many carbon credits. It's worth this much down the line," he says.

Liu's ethos: To help the environment, you have to make it financially viable to do so.

"Look at so many social enterprises across the world, who are not economically sustainable themselves, meaning that they rely on handouts from other people. To be honest, that's not sustainable," he says.

Liu and his team are hoping to list Xarbon on the Main Board of the Hong Kong Stock Exchange in just three years' time. If successful, it will be the first sustainable technology company to do so.

"This would send a message to the whole sustainability market saying, 'Hey, stop begging for money. Come up with better business plans, get more smart people involved in your businesses so that your environmental sustainability also has an economical sustainability aspect to it.'"