

Sustainability TechSprint 2021: TechSprint Demos

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DeCO (Decentralised Carbon Offsetting) Platform

Presenter: Sonia Ganess, Dan Hirst

Judges: Francesca Hopwood Road (Chair)

- Bruce Harrison; Managing Director, BlackRock
- Elena Strbac; Global Head, Data Innovation, Standard Chartered
- Emily Keaney; Director of Legislative Reform, Information Commissioner's Office
- Emily Pierce; Assistant Director, International Affairs, U.S. Securities and Exchange Commission
- Jayne Wickins; UK Banking Director, Microsoft
- Stephen Ingledew; FinTech Scotland Executive Chair
- Satoshi Ikeda; Chief Sustainable Finance Officer, Japan Financial Services Agency

Sonia Ganess

Hi, I'm Sonia.

Dan Hirst

And I'm Dan.

Sonia Ganess

And as members of team two, we would like to present DeCO. A platform that revolutionizes company net zero goals, by adding transparency and accountability to carbon offset programs. Next slide, please.

Dan Hirst

Our team was drawn to use case three - monitoring how companies are working towards net zero targets. If you can go to the next slide, please, that'd be great. A primary way that companies are reducing their net carbon is via carbon offsetting. Investing in programs that store more carbon than they emit, which offsets the pollution their business produces. Examples include reforestation, renewable energy and direct air capture. This approach is growing and our analysts expect the carbon offset industry to reach \$200 billion by 2050. Next slide please. As with any pivotal industry, the emergence of carbon offsetting has come with some significant pain points. The market is almost totally unregulated and unverified, resulting in a number of problems. Banks invest in reforestation projects that never plant a single tree, the same parcels of land are sold to multiple companies at once, and renewable energy projects produce less electricity than they originally promised. The entire industry is opaque. So it's difficult for regulators to confirm that financial authorities are committing to their goals and for the public to fully trust the green credentials. Something must be done to add transparency and certitude to the carbon offset market. Next slide please. We strongly believe that there's an opportunity here to change the future for the better. Today we want to present DeCO, a platform that provides independent verification for companies' carbon offsetting projects. In a nutshell, we audit companies carbon offset schemes to ensure that they are producing the environmental benefits that they are claiming and that they paid for. We monitor carbon offset schemes using a variety of sensors, such as satellite imagery, drones, and Internet of Things devices. Next slide, please. These sensors are

automatically analyzed using artificial intelligence and any unusual activity is flagged for regulators, financial institutions, and the public to see. Our data will be openly available on a decentralized ledger, for example, the blockchain, so that everyone can see the raw and processed insights that we have gained. This way our use case brings together trust and value for regulators, financial institutions, companies, and consumers through technology that is available right here right now. Could you play the demo please?

Sonia Ganess

Our platform tailors experiences for different users with different views for regulators, banks and the public. This screen is what the regulator sees: a list of banks they oversee and an index showing the health of their carbon offset efforts. From here, the regulator can click through and see a list of the carbon offset programs they fund and go even further to see the raw and processed data that is verified at the state of the carbon offset. The Red Amber Green index is derived from three sources of independent data: satellite imagery displaying a five-year history of forest size changes, giving a macro overview of the reforestation program to monitor vast swathes of area; drone imagery, proving the existence of the forest, monitoring its health and checking for diseases and monitoring the growth of individual trees; and IoT data, monitoring indices and metrics that we cannot get from the air such as pollution levels, coverage of light and the amount of carbon currently stored in each tree. Regulators can access data from an immutable ledger via an API we built as a part of this sprint. This dashboard enables regulators have a bird's eye view of the companies they audit, from which they can have confidence in their ESG reporting. Next slide, please.

Dan Hirst

The key differentiating factor of our solution is transparency. We are a gold standard for verification that demonstrates to everyone - the banks, the regulators, and the public - exactly the efforts that these companies have gone to, to achieve net zero. We are using existing disruptive technologies in a way that will ensure transparency and honesty. There's a huge amount of value available for businesses as part of this program. A verification platform will improve brand reputation and substantiate group credentials. It will give consumer confidence to green branding, protect against greenwashing and allow businesses to expand into the sustainable financial products marketplace, with a confidence of substantiation by an independent body. It will also allow businesses to monitor their own net zero targets, by having clear view of their own existing carbon offsetting programs, but also having an accurate insight into the carbon footprints of their suppliers' end to end supply chain. All the while being more transparent to their customers and regulators about achieving net zero.

Sonia Ganess

We believe that DeCO is the future of the carbon offset market. By combining disruptive technologies, a philosophy of transparency and accountability and a sustainable and scalable business model, we will help regulated companies in their long journey towards net zero. Thank you.

Francesca Hopwood Road

Wonderful. Thank you very much, indeed Team DeCO. I would now like to again open the floor to our judges for any questions for the team and I can see one coming in from Jayne. So maybe we just go straight to Jayne, the floor is yours.

Jayne Wickins

Thank you for such a brilliant pitch. Just wanted to ask you there, how would you bring this to mark - how easy would it be to adopt?

Dan Hirst

That's a really great question. And we start by using a single carbon offset product with one financial institution. We probably start with forestation using satellite imagery because it's the most open, transparent, and also free for almost any use case. And then we expand from there to add different businesses and then onto different carbon offset products.

Francesca Hopwood Road

Thank you very much. Right, Bruce. I know you have a question.

Bruce Harrison

Thank you. And thanks for the presentation. Great product. And my question is, have you actually spoken to any regulators about how they would use this data and the compatibles in their interactions with companies?

Sonia Ganess

So, unfortunately due to the time constraint, we did not have the ability to talk to regulators, but that's something that we'll definitely have within our next step, especially to conduct user interviews and better understand their pain points and what they're looking for within the dashboard.

Francesca Hopwood Road

Thank you. And with a chance for one final questions, Satoshi.

Satoshi Ikeda

Well, I'd like to know, how do you assess the level of carbon offset by satellite images or drone images, and how do you compare your project with the REDD+ project put forward by WRI and the WWF?

Dan Hirst

I think the main differentiator is our philosophy of transparency and openness, and that it is going to be very unique in the ability that it is completely open.