

HARNESSING THE POWER OF DATA TO BOOST TREE PLANTING

Stef Kaiser speaks to Dr Matthew Brown, one of the founders of Forest Creation Partners, a business using data science and innovative financing to enable large-scale tree-planting.

Forest Creation Partners, founded by Matthew Brown and Rafi Cohen just last year, uses data sciences to help landowners, investors, and policy makers discover their potential for tree planting to contribute to their environmental and financial plans.

Planting the right tree in the right place depends upon a number of factors – environmental, social, financial and regulatory. FCP’s key product, the software *ForestFounder*, utilises a wide range of geospatial data sources to scan unlimited land areas and pinpoint optimal locations for planting trees.

“We think of ourselves as a data science firm, but equally importantly as a mission-driven firm”, explains Matthew Brown. “We set up the business because we want to have a positive impact on the climate and nature crisis, and that’s our North Star. We have our nerdy roots in data science but we are driven by having a positive impact on the World.”

For Matthew and Rafi, the combination of their robust data science background and sustainability-focused business ethos has proven to be a recipe for success: in August, the firm was granted UK Government funding to extend the *ForestFounder* software. The investment, which is part of the Department for Business, Energy and Industrial Strategy’s commitment to increasing UK production of biomass, will enable FCP to upgrade and extend the

software and broaden their capabilities in two ways: geographically, extending it to Scotland and Wales; and in the range of tree species, allowing to cover species for short rotation forestry or short coppice. The improved *ForestFounder* will be able to identify suitable locations to plant Eucalyptus or Willow, for example.

“We made this bid in collaboration with Forest Research and they have been really helpful to us already in the creation of FCP and so we are very excited to continue this working relationship with them. All of the data sets that Forest Research produces within their collaboration with us, such as data on new species or updated future climate datasets, will be made publicly available through the ecological site classification tool to benefit the wider sector.

In addition to incorporating data on new species into *ForestFounder*, FCP will use the investment funding to extend all of their existing capabilities, including their

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Dr Matthew Brown and Rafi Cohen (right)

existing timber and nature focus, to Scotland and Wales.

Despite the fact that the BEI’s funding competition highlights the need for biomass for energy generation, the investment will not narrow FCP’s business aspirations: “There is a range of objectives that this country needs to get out of land management – we need food, wood, energy, places for nature to thrive, places for people to enjoy – plus all the other benefits we can get from forests. We therefore need all different kinds of ‘biomass’ (in the wider sense) in different places and we want to help enable all of that activity”.

I enquiry about Matthew’s and Rafi’s career journey into the sustainability sector. Both could be described as ‘nerds at the service of the environment’. Matthew



trained as a physicist and his business partner Rafi is a Chartered accountant with a degree in neurosciences. “Rafi and I are both passionate about protecting and enhancing the environment and trying to combat the climate crisis. That is what has driven our career up to date and that is why we wanted to set up this business. I worked as a government scientist leading the climate change mitigation team at Defra, and then went on to work with businesses at the Confederation of British Industry heading the Energy and Climate Change team. Similarly, Rafi has done a lot of this kind of work in his consulting career with businesses and governments looking at climate change related challenges.”

Both company founders are clearly ‘system thinkers’ who enjoy exploring connections and understand how systems come together to create meaningful change. “I think our mindset has determined the way we approach the challenges we are trying to solve with FCP.”

But what made the two eco-conscious entrepreneurs apply their nerdy skills to the very specific challenge of boosting tree planting in the UK?

“From a rational perspective, nature-based solutions are a part of the response to the climate challenge that has been less explored and there is still lots of potential”, says Mat-



thew. “We also liked the fact that there is a lot of scope to achieve multiple objectives at the same time, for example, the climate and biodiversity crisis can be addressed in parallel. It’s an area with a lot of positive impact to be had. Within the nature-based sector, what drew us to specifically address the tree planting aspect is the fact that there is such a gap between where planting rates need to be and where they are at the moment. We felt that this was an area where we wanted to make our contribution.”

Moving away from their business motivation, I want to know more about the expertise in their team. In order to offer recommendations on suitable planting sites, they will need to draw from a very diverse range of datasets from different disciplines – planning and infrastructure, soil science, silviculture, climate. And you can’t be specialist in everything. How do they source these datasets, and, more importantly, how do you assess the quality and relevance of these datasets?

“We would never have got to where we have if it weren’t for building relationships with experts in all these disciplines that feed into *ForestFounder*. Forest Research is an example of that – we could never hope to have the ex-

pertise in forest science that they do. The relationships and networks we have built to create *ForestFounder* have been more important than our data and coding skills and I’d say that the robustness of what we are doing comes from those relationships and the ultimate sources of the data.”

When engaging with a client, Forest Creation partners are fully transparent about how a specific problem is being approached, and what the limitations of the datasets and outputs might be for their specific case.

“If we’re scanning 30,000 hectares for a large landowner the output they would get is identifying the few thousand hectares that are very likely to be optimal for forestry. But there is always some ground truthing to be done. We are not saying that the maps we produce are definite answers. We take the client from a point where they don’t know where to start planting on their estate to telling them which sites they should further evaluate for tree planting, sites with a high likelihood of being suitable.”

The *ForestFounder* software can also quantify the potential for financial, carbon and biodiversity impact for specific sites that have been pinpointed for planting. It helps clients get a sense of the overall scope, how much tree planting could contribute to their sustainability strategy and potentially their financial strategy.

Visit www.forestcreationpartners.com