Sub-Saharan Africa has made great strides in child health, yet in 2009, one in every eight babies still died before the age of 5, double the average for the world's developing regions. That problem, outlined in a 2011 UN report, caught the attention of Morten Albæk, Chief Marketing Officer for Denmark-based Vestas, leading provider of wind turbines.

"I asked myself, could wind power play any role in combating child mortality?" Albæk says. At Vestas, he had access not only to the wind turbines themselves, but also to a supercomputer and a trove of global wind data. "What if we connected two data sets: a mapping of areas with an abundance of untapped wind resources, and a map of areas with the highest level of child mortality on the planet?"

That simple idea produced an early target – bring wind energy to more than 1 million people by 2017 – and a new company, Wind for Prosperity, an example of how Big Data can be tapped to aid humanity, create a viable business model on commercial terms, and offer an ethical investment opportunity.

Matching Vestas' wind data with International Energy Agency statistics on rural communities that lack power, Wind for Prosperity estimates it can potentially change the lives of 100 million people in rural communities in 80 countries by creating reliable electricity to help improve education, healthcare, irrigation, water quality and communications infrastructure, among other social benefits.

WITH VESTAS' SUPPORT and aided by the company's proven technology, Wind for Prosperity was launched in 2013. Vestas itself has installed turbines in more than 70 countries, delivering clean energy and addressing climate change and pollution as part of its daily business. Chief among its assets is Firestorm, a supercomputer programmed to predict meteorological conditions worldwide down to areas as small as 10 square meters. With that information, Vestas can gauge where and how the wind will blow →

THE ANSWER IS BLOWING IN THE

WIND

Wind for Prosperity uses Big Data to deploy wind turbines, improving lives and creating an ethical investment opportunity, MORTEN ALBÆK **tells Brunswick's** BIRGITTA HENRIKSSON

In a building without electricity, schoolchildren in North Horr, near Lake Turkana in the Chalbi Desert of northern Kenya, use flashlights for evening classwork. North Horr is one of the communities targeted by Wind for Prosperity as a potential wind turbine site

for the next 20 years, allowing it to create highly efficient wind parks.

Wind for Prosperity takes that technology where it is most needed. Using recycled wind turbines, the plan is to launch a pilot in 2015 in four Kenyan communities, giving more than 100,000 people access to electricity at about a third of the current cost per household of diesel generation. Reducing the use of generators will also lower diesel fuel use by more than 2,000 tons per year. In time, the project intends to create both on- and off-grid wind farms globally, using refurbished and new turbines.

As well as Vestas, partners include Masdar, Abu Dhabi's renewable energy company. Clean energy groups, UN representatives and public figures such as Sir Richard Branson have also climbed on board, drawn by the project's unusual emphasis on creating a profitable business model rather than a charity.

"Wind for Prosperity will have to become 100 percent commercially viable over time, in order to be truly scalable to a level that is needed to fight child poverty," Albæk says. "We had to design the project as a business case with social benefits."
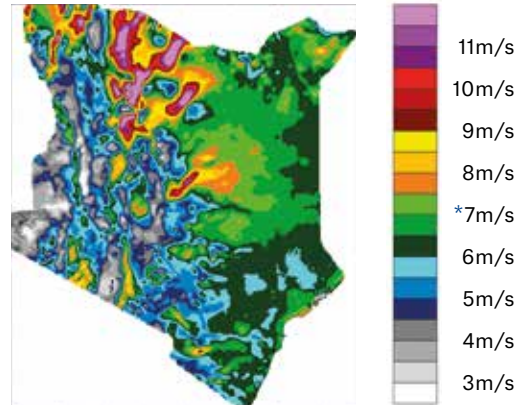
"WIND FOR PROSPERITY is a fascinating initiative," says Michael Liebreich, former CEO of the Bloomberg analyst group New Energy Finance and one of Wind for Prosperity's backers. "As the European wind market matures, large numbers of older turbines are going to be replaced with newer, larger models. These older turbines are perfect for isolated rural communities, with simple, reliable, proven designs. It makes perfect sense to ship them out, refurbish them and give them another lease of life. They can play a big role helping to bring modern energy services to communities that have been waiting far too long. It's a great model, and I only hope it scales quickly."

It wasn't easy to convince all parties to get behind the for-profit, humanitarian model. One of the project's larger challenges was the development of a technical and communications strategy that could convince stakeholders and

navigate local government bureaucracy. But at the end of the day, it was simple, mechanical logistics that proved the most daunting challenge. "To transport a 65 meter tower, 20 tons of heavy wind turbine, through the Chalbi Desert in the north of Kenya near Ethiopia is probably more difficult than it is to put a man on the moon nowadays," says Albæk.

For Vestas, Wind for Prosperity serves as a communications vehicle for all its projects that help combat the challenges of energy poverty, water scarcity and climate change. In other words, the new company will be a "strategic and benign 'Trojan Horse,'" Albæk says, attracting business for Vestas by building strong relationships with local communities.

"Vestas' recent order in Lake Turkana, Kenya, for the largest African wind farm comprised of 365 wind turbines, comes as a result of working closely with Kenyan society to combat child poverty," Albæk says. It demonstrates "commitment to the local society, paving the way for other commercial projects. The fact that this

initiative is born out of the core of Vestas' technology leadership in wind power makes it possible to build a communications strategy that will actually be credible and thus effective as a tool to strengthen the brand." *windforprosperity.com*

MORTEN ALBÆK

Morten Albæk is CMO and Group Senior Vice President for Marketing, Communication and Corporate Relations at Vestas Wind Systems, the Danish company that is the world's leading producer of wind turbine technology. He has an academic background and is an Honorary Professor in Philosophy and Education at Aalborg University in Denmark.

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FORCE OF NATURE

● The map shows wind speeds in Kenya, measured in meters per second (m/s)
● Utility-scale turbines require minimum average wind speeds of 6 m/s (13 mph)
● **21% OF KENYA HAS WIND SPEEDS OF MORE THAN 7 M/S (2013)***

The first Wind for Prosperity projects in Kenya will focus on four communities and 100,000 people. These will supply electricity at least 30 percent cheaper than the current cost of diesel-generated power, and will cut diesel fuel use by more than 2,000 tons a year

11m/s
10m/s
9m/s
8m/s
*7m/s
6m/s
5m/s
4m/s
3m/s

KENYA POPULATION (2010)	**RURAL POPULATION (2010)**	**RURAL POPULATION WITHOUT ELECTRICITY**	**INFANT MORTALITY PER 1,000 LIVE BIRTHS (2013)**
40.91 million	31.27 million	29.77 million	48[†]

SOURCE: VESTAS, WORLD BANK, INTERNATIONAL ENERGY AGENCY / [†]DENMARK 3, US 6, CHINA 11, SIERRA LEONE 107