

HIGHLY INVENTIVE

DIÉBÉDO KÉRÉ FRANCIS

Hello! My name is Diébédó Francis Kéré. In 2022, I became the first African to win the Pritzker Architecture Prize – the world's top award for people who design buildings.

But it has been a long journey – literally!

I grew up in a tiny village called Gando in Burkina Faso, West Africa. There was no school, but we were like one big family. We played together in the village, laughed, and built houses side by side. When I was seven, I went to live with my uncle in the city of Tenkodogo to learn to read and write. **My first journey!**

My school was very hot, with little light or air, and one hundred children all crowded together. This was when I decided that one day I wanted to build better schools for everyone – beginning back home in Gando!

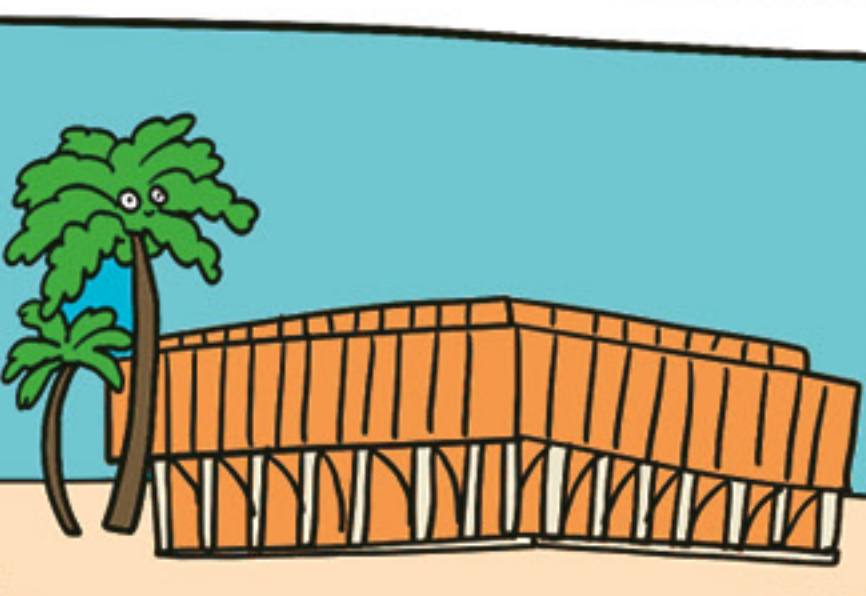
After leaving school, I became a carpenter, working with wood. Skills like these can take you far. Mine took me to Berlin, Germany, where I eventually went to college to study architecture.

could I make my dream come true?

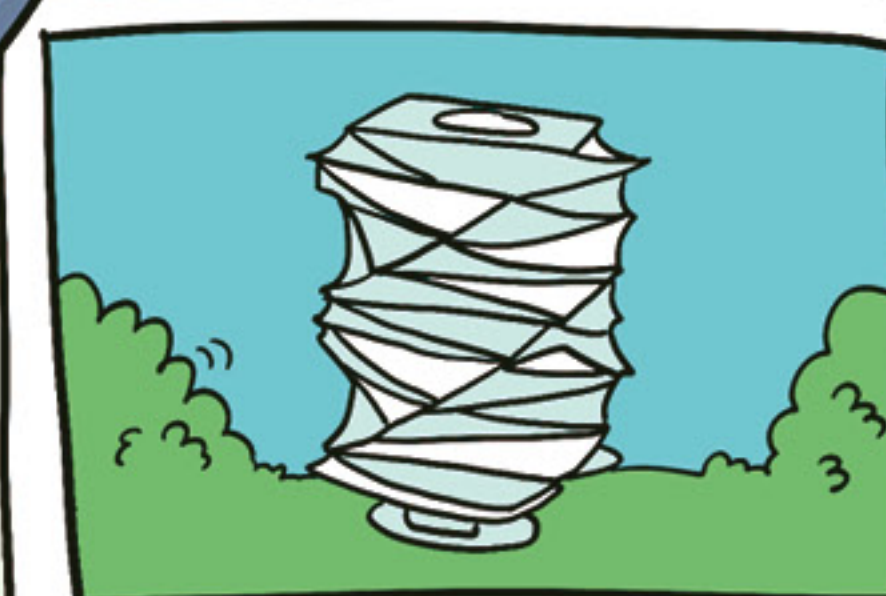
Maybe! I headed home to Gando to build an eco-friendly school with the help of the community. We made mud bricks rather than use expensive cement and planted mango trees for shade – as well as their tasty fruit!

It was finished in 2001 with a raised roof to beat the heat. I qualified as an architect soon afterwards and went back to build a high school, as well as homes for teachers too!

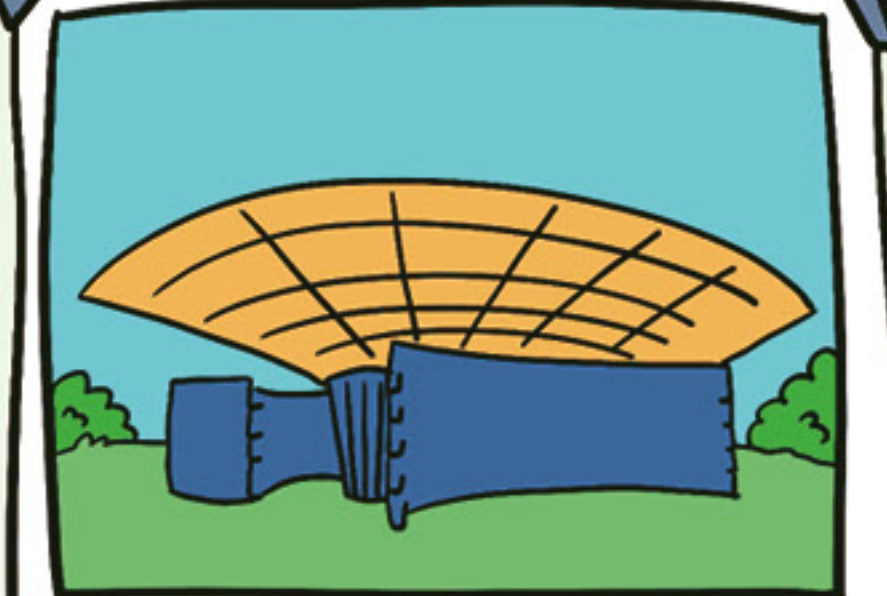
But, best of all, my cool school inspired others like it to be built. Now I have designed buildings all over the world that work with nature, not against it.



BENIN NATIONAL ASSEMBLY,
PORTO-NOVO, BENIN



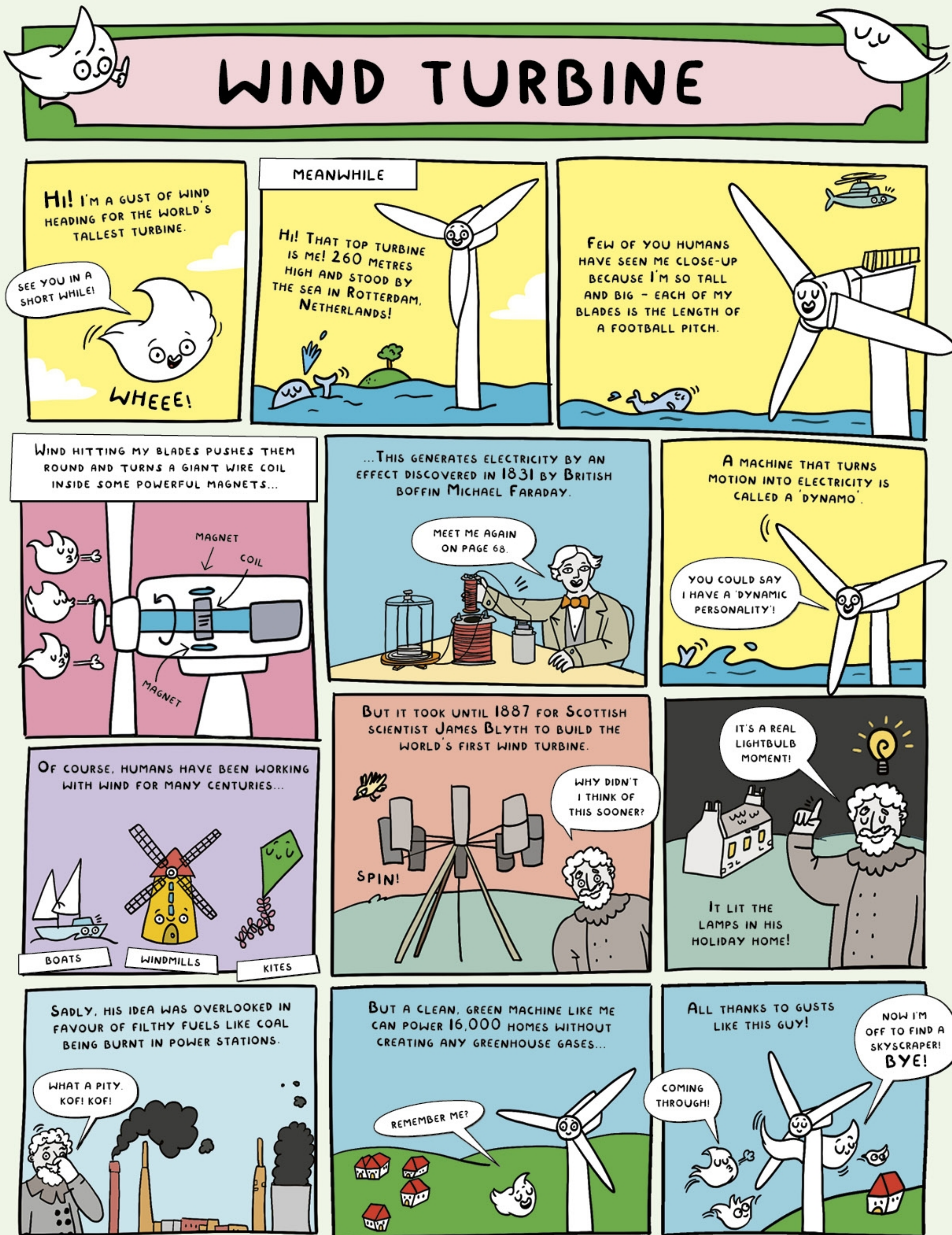
TUM TOWER, UNIVERSITY OF
MUNICH, GERMANY



SERPENTINE PAVILION,
LONDON, UK

It's been a great journey – and it isn't over yet!

WIND TURBINE



Hi! I'm a gust of wind heading for the world's tallest turbine.

SEE YOU IN A SHORT WHILE!

WHEEE!

MEANWHILE

Hi! That top turbine is me! 260 metres high and stood by the sea in Rotterdam, Netherlands!

Few of you humans have seen me close-up because I'm so tall and big - each of my blades is the length of a football pitch.

Wind hitting my blades pushes them round and turns a giant wire coil inside some powerful magnets...

...This generates electricity by an effect discovered in 1831 by British boffin Michael Faraday.

A machine that turns motion into electricity is called a 'dynamo'.

MEET ME AGAIN ON PAGE 66.

YOU COULD SAY I HAVE A 'DYNAMIC PERSONALITY'!

But it took until 1887 for Scottish scientist James Blyth to build the world's first wind turbine.

IT'S A REAL LIGHTBULB MOMENT!

OF COURSE, HUMANS HAVE BEEN WORKING WITH WIND FOR MANY CENTURIES...

WHY DIDN'T I THINK OF THIS SOONER?

IT LIT THE LAMPS IN HIS HOLIDAY HOME!

SADLY, HIS IDEA WAS OVERLOOKED IN FAVOUR OF FILTHY FUELS LIKE COAL BEING BURNT IN POWER STATIONS.

BUT A CLEAN, GREEN MACHINE LIKE ME CAN POWER 16,000 HOMES WITHOUT CREATING ANY GREENHOUSE GASES...

ALL THANKS TO GUSTS LIKE THIS GUY!

NOW I'M OFF TO FIND A SKYSCRAPER! BYE!

WHAT A PITY. KOFI KOFI!

REMEMBER ME?

COMING THROUGH!

WHATEVER NEXT? STAR TURNS

WATCH OUT! TURBINES AHEAD!

DESERT WINDS

A collection of turbines is called a windfarm or an array. The world's largest windfarm, with over 7,000 turbines, is in Gansu, a remote part of China, next to the windy Gobi desert.

RED ALERT

Most turbines are painted white so they are easier for airline pilots to spot. In Germany, red bands on the blades indicate how near they are to airports.

SEE THE LIGHT!

One turbine close to the coast in the North European region of Frisia has been painted to look like a traditional local lighthouse.

BAT SIGNAL

Turbines are good for the planet, but can sadly be bad for birds and bats. Some have boom boxes to play high-frequency noises that scare bats away at night.

BULLET TRAIN

Hi! I'm a Japanese bullet train or 'shinkansen'!

Like a bullet, I also have a target to hit - a top speed of 300 km/h!

THAT'S THREE TIMES FASTER THAN A SPEEDING CAR AND WITH JUST A FRACTION OF THE HARMFUL EMISSIONS...

USE YOUR BRAIN. TAKE THE TRAIN!

BAH! SORRY!

'SHINKANSEN' MEANS 'NEW MAIN LINE', AND THERE ARE NOW LOTS ACROSS JAPAN...

HAKODATE
HIROSHIMA
KYOTO
TOKYO

SEE YA LATER!
ZIP!

TRUNDLE!
BAH!

THE TRAIN TIMES
TRAIN !!!! 2 !!!! SECONDS LATE

BULLET TRAINS BEGAN IN JAPAN IN 1964, IN TIME FOR THE TOKYO OLYMPIC GAMES...

I'M A FAST RUNNER.
ME TOO!

BULLET-SHAPED NOSE

BOOM!

SORRY ABOUT THE NOISE...

BUSINESS BOOMED, BUT SO TOO DID THE TRAINS ON LEAVING TUNNELS...

THEY CAUSED SONIC BOOMS JUST LIKE JET PLANES BUT ONE CLEVER ENGINEER, EIJI NAKATSU, HAD AN IDEA.

A LITTLE BIRD TOLD ME...

HE STYLED THE NOSES OF THE TRAINS AFTER THE BEAK OF THE KINGFISHER, A BIRD THAT DIVES INTO WATER...

SWOOP
EEEK!

AND THAT'S NO FIB!

KINGFISHER NOSE

NOW, MUST RUSH. DON'T WANT TO BE LATE!

BYE!

WHATEVER NEXT? BULLET POINTS

HELLO, YELLOW!

A special banana-coloured bullet train called 'Dr Yellow' travels the tracks making safety checks. People say it is good luck to spot it!

SUPER-FAST FOOD

Hungry bullet train travellers can enjoy ekiben - tasty snack boxes in the shape of Dr Yellow!

HELLO, LO!

The 'LO' (L Zero) is an experimental shinkansen that rides on magnets rather than rails. In 2015, it set a world record train speed of 603 km/h! L.O.L!

HELLO, KITTY!

Though most bullet trains are largely white, some rail regions have their own special colours. One super-cute shinkansen was decorated in pink and white for the Japanese cartoon character, Hello Kitty!