



A Sustainable, Elegant & Portable
Bike System for the modern city.

CHARLWOOD
DESIGN



1 | OVERVIEW

The Vestri bike sharing system is a unique, elegant and sustainable transportation solution designed for a modern city such as Copenhagen. Named after Vestri, one of the four dvärgar that represent wind in Norse Mythology, our system is not only inspired by the environment of the city but also uses the wind power available to sustain itself.

A number of bicycle rental stations with integrated vertical wind turbines can be installed throughout the city in designated areas. These stations generate their own power, lock the bikes when not in use and communicate wirelessly to a central command centre. Commuters simply need to insert their credit card or alternatively a **vestri card**¹ if they are a frequent user and borrow the specially designed, robust and unique bicycle. Bikes can be pre-booked online, via sms or from an in-train **vestri terminal**². Once finished with the bike the commuter returns it to a rental station, with incentives in place to encourage distribution of bikes to high use areas. Since the rental stations are self-sufficient they can be relocated based on commuter demand.

¹ For more information please refer to page 8 of this document
² For more information please refer to page 10 of this document

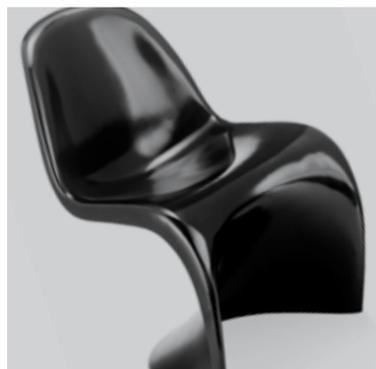


BIKE RENTAL SYSTEM © CHARLWOOD 2009



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2 | BICYCLE



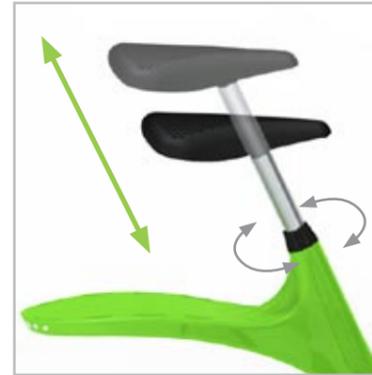
Inspired by the modern, playful form of classic Danish design the Vestri Bike is friendly, elegant and practical.

It is designed for low cost and easy maintenance with a rotationally moulded polypropylene body, shaft drive and ergonomic proportions for both men and women. The seat height is easily adjusted with a spring loaded clip. The tyres are injected with urethane to withstand punctures.

The body also has a pannier rack integrated into the design for the users bag to be fastened to.



2 | BICYCLE



Seat is easily adjustable for different heights. The pole is spring loaded and can be fastened at the correct height by turning a fastener.

The bike frame has a pannier rack integrated for fastening the users' bags.

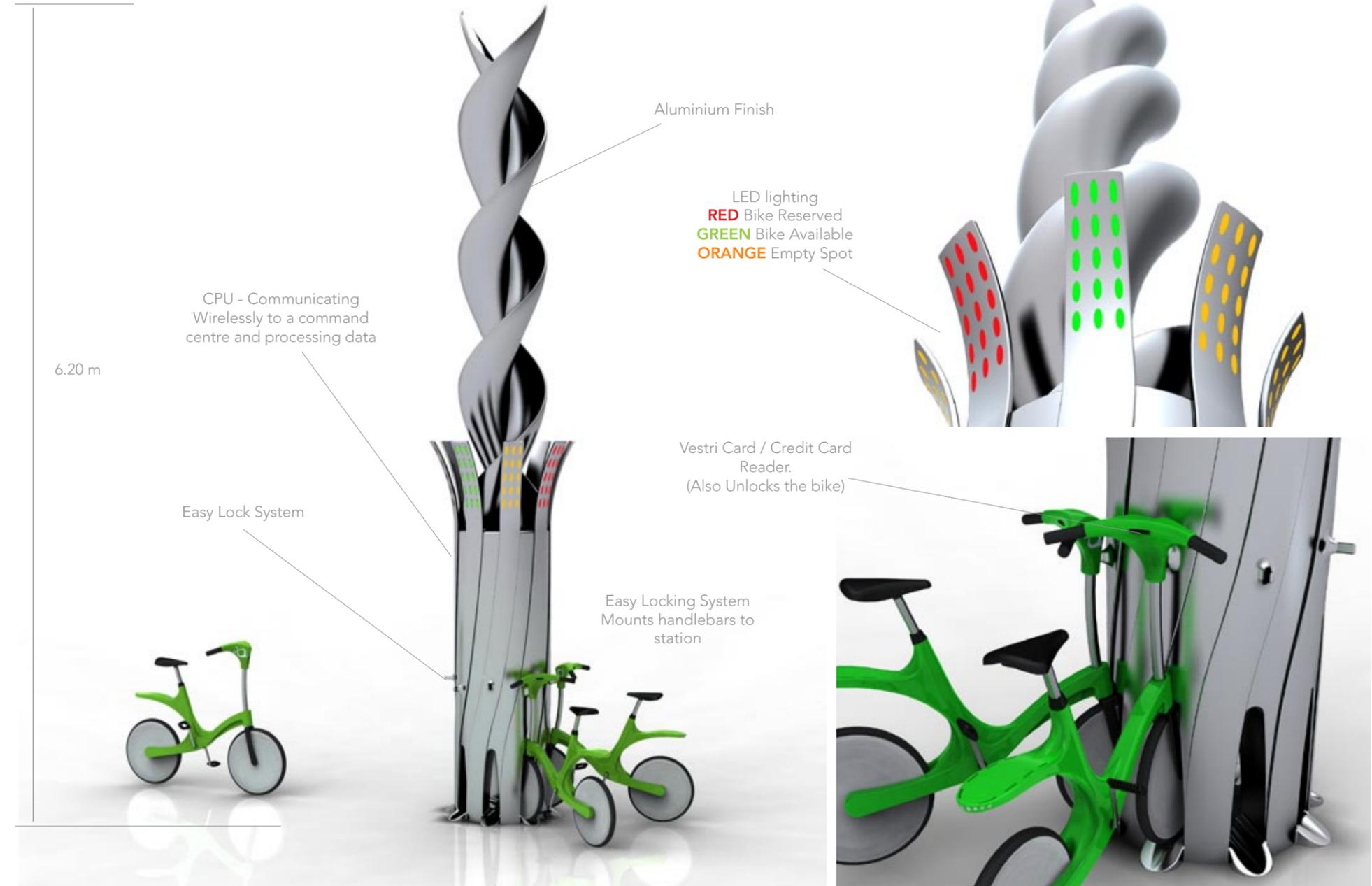


3 | RENTAL STATION

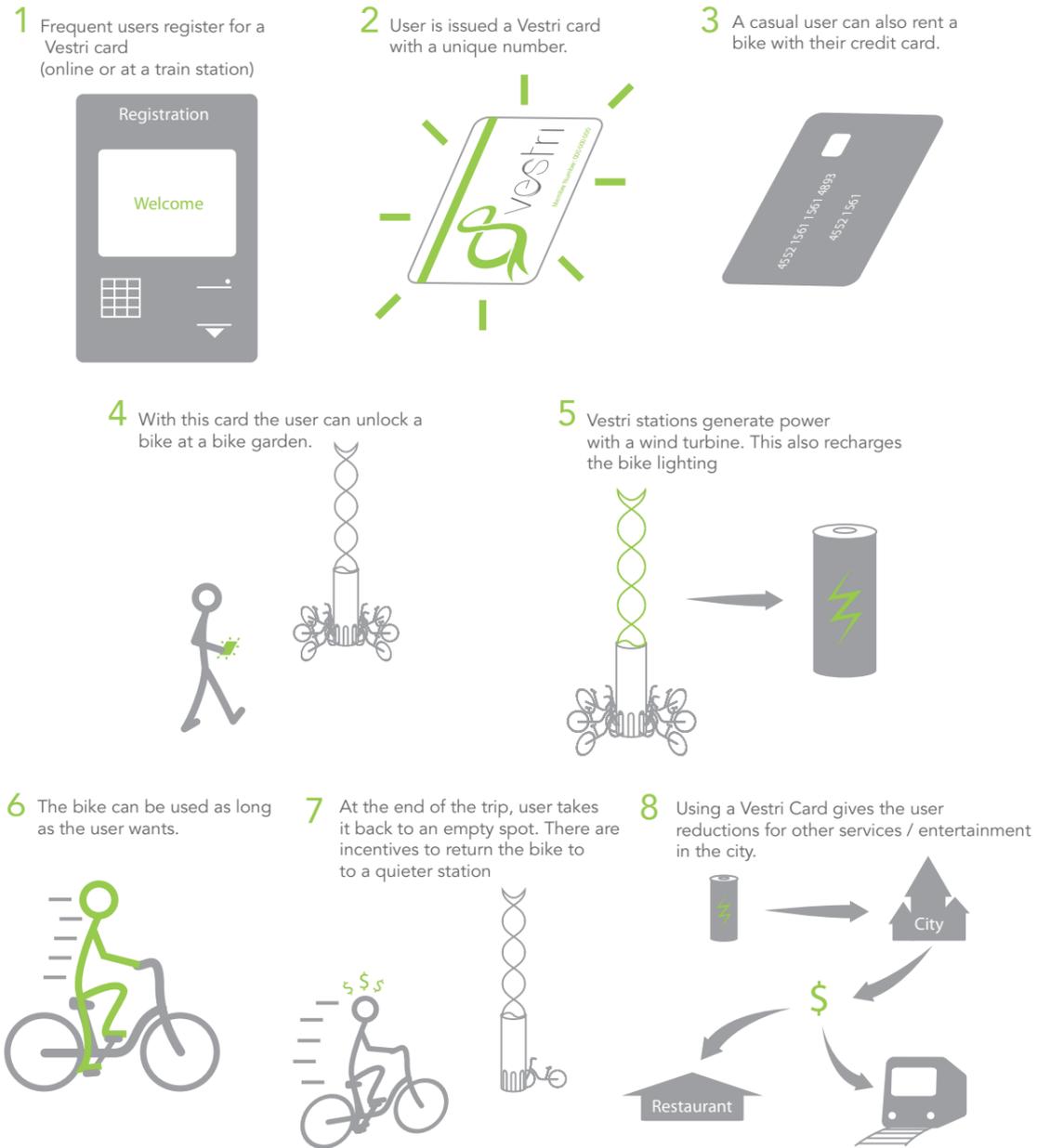
The Vestri rental stations are inspired by the gusts of wind that power them. Fabricated from aluminium they are built around a vertical wind turbine which powers the lighting of the structure, the central computer within and recharges the lighting on the bicycles.

The robust design is a unique, elegant and attractive addition to the city landscape and since it is self sufficient can be easily integrated.

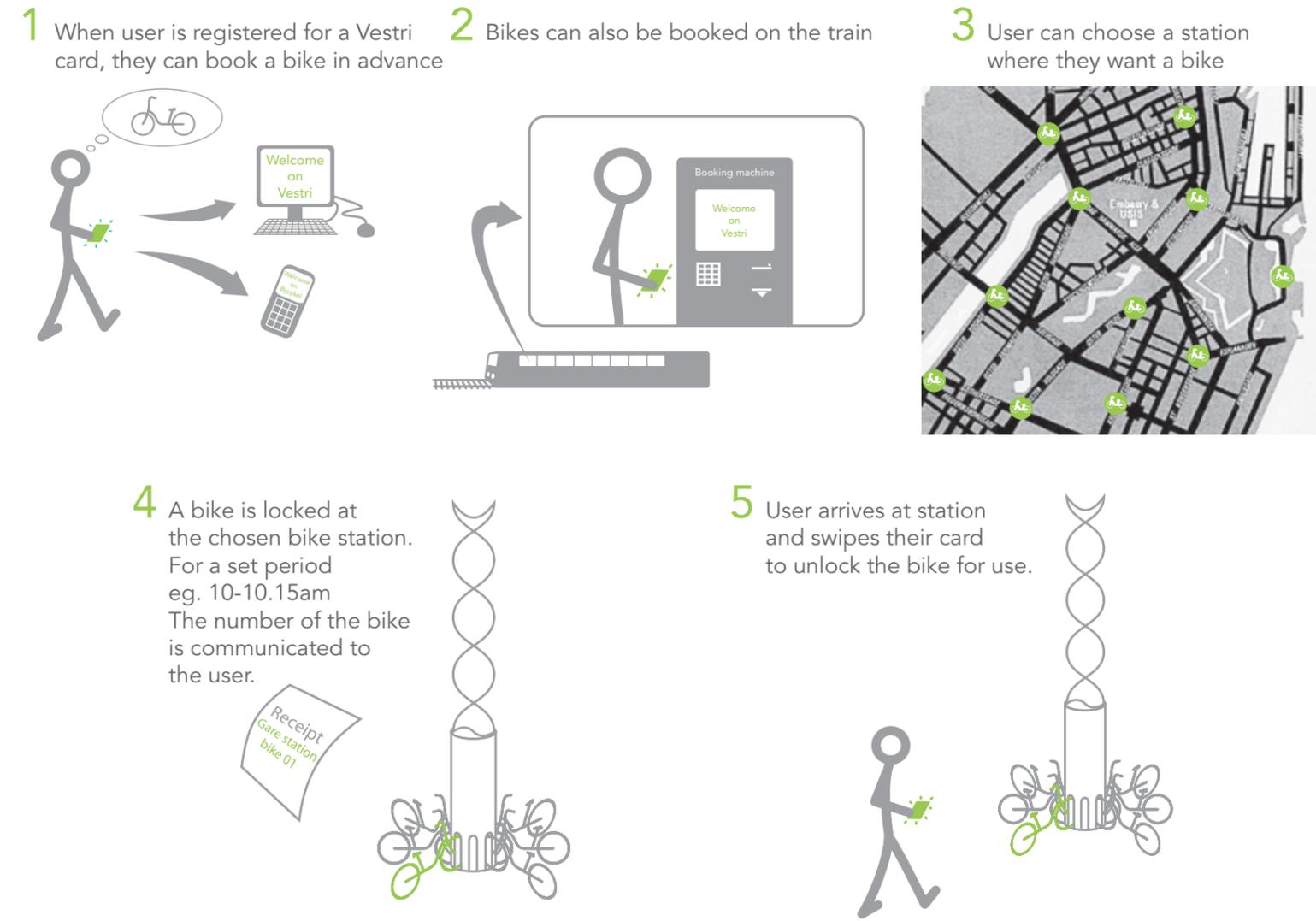
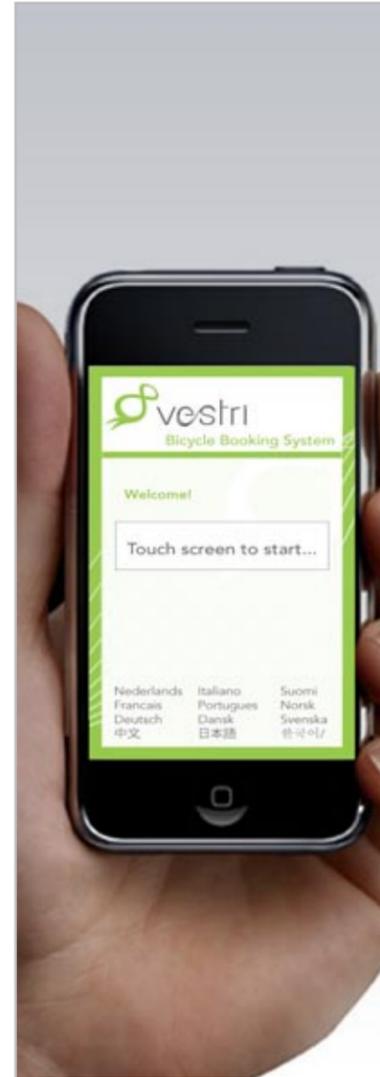
Each station is designed to hold 8 bikes and multiple stations can be installed in popular areas. LED lighting integrated below the turbine can give a clear signal if the bike has been reserved (Red Light), Available (green light) or if there is a bike missing (orange).



4 | RENTAL PROCESS



5 | BOOKING PROCESS



6 | IN TRAIN BOOKINGS

The Vestri bike system is designed to be an indispensable resource for train travellers. As an alternative to booking via the internet or mobile phone Vestri "in train" terminals are available to commuters who can reserve a bike for when they disembark from the train. These terminals are also installed on train platforms.



7 | NIGHT RIDING

The Vestri bicycle has kept user safety in mind by integrating front and rear lighting that is recharged via the bike station.

This makes the bike system still practical to use at night and on dimly lit days.



8 | RETURN FOR REWARD

By registering for a Vestri Card users have the opportunity to be rewarded for the use of the bike. Distribution of Bikes to empty stations is encouraged and the user is rewarded with credits that they can use for other services or discounts throughout the city, for example; meals, discount train tickets or entertainment.

The data collected through the vestri card system is also valuable to assess usage patterns, frequency of use and could potentially be used as a marketing tool for the city.



9 | PORTABLE & DYNAMIC

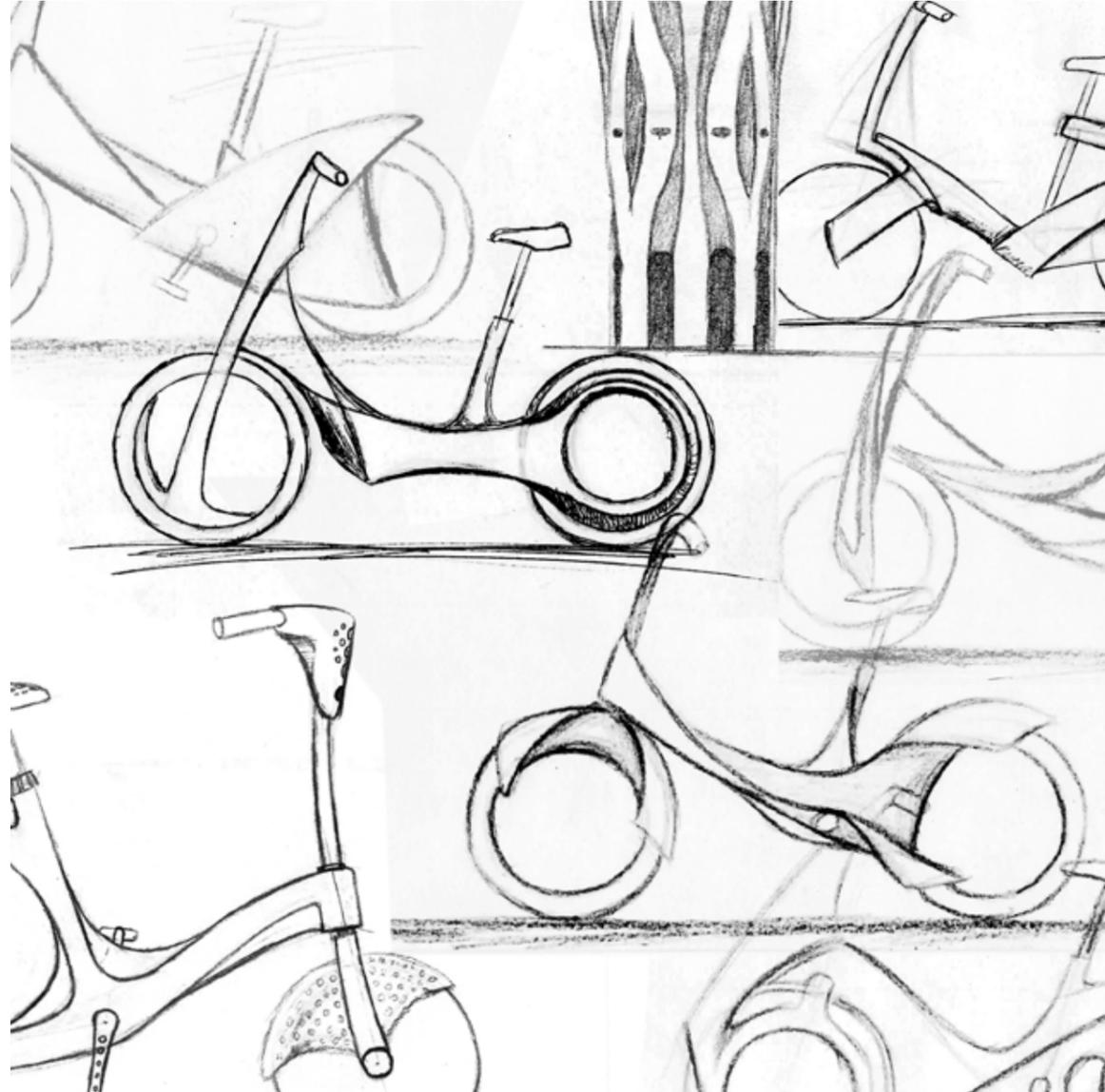


Vestri Stations are able to be dismantled for easy relocation. Since they are not wired into the city's powergrid they can be installed in practically any outdoor location.

The city can dynamically change for commuters needs for example, they can relocate stations when there is a sporting event or a concert.



10 | RESEARCH & DEVELOPMENT



THANKYOU