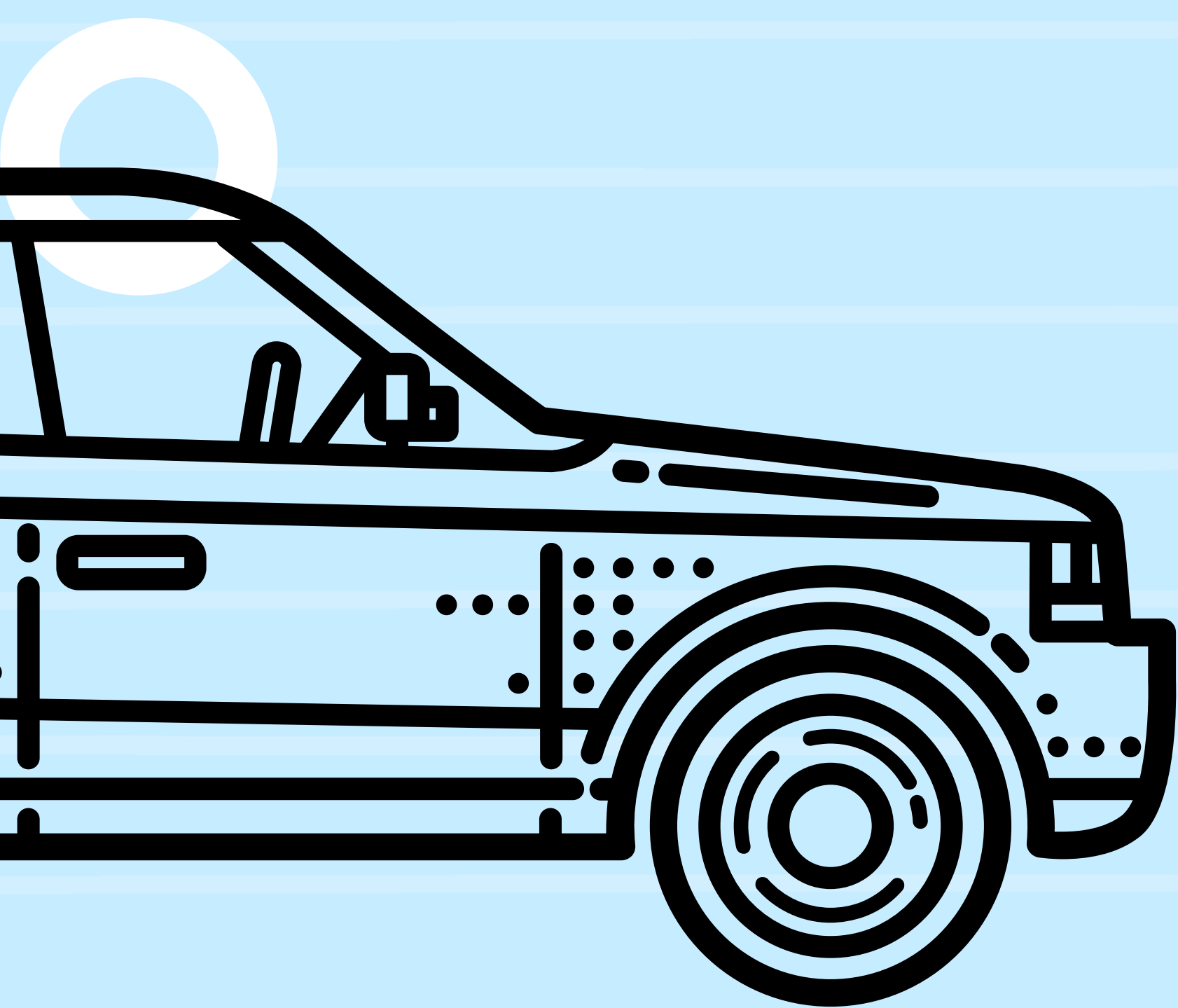


BIODEGRADABLE CARS

DESIGN FOR **SUSTAINABILITY**
DESIGN FOR **HUMANITY**



FIGHT AGAINST THE DESTRUCTION OF OUR EARTH

DRIVING AROUND NEW JERSEY, MY FAMILY AND I HAVE SPOTTED EXPANSIVE **JUNKYARDS** - HUNDREDS OF RUSTING **CARS**. AS ONE OF THE **GREATEST POLLUTANTS** IN THE WORLD, CARS HARM THE ENVIRONMENT IN MANY WAYS. APART FROM BEING THE SECOND LARGEST EMITTER OF CARBON DIOXIDE, JUNK CARS RELEASE MANY TOXINS. HEAVY METALS, INCLUDING MERCURY, ARSENIC, AND LEAD, MIGRATE FROM SALVAGE YARDS IN STORM RUNOFF, CONTAMINATING GROUNDWATER AND ENTERING OCEANS. IN AN ECOSYSTEM ALREADY DEVASTATED,

THIS ISSUE IS URGENT.

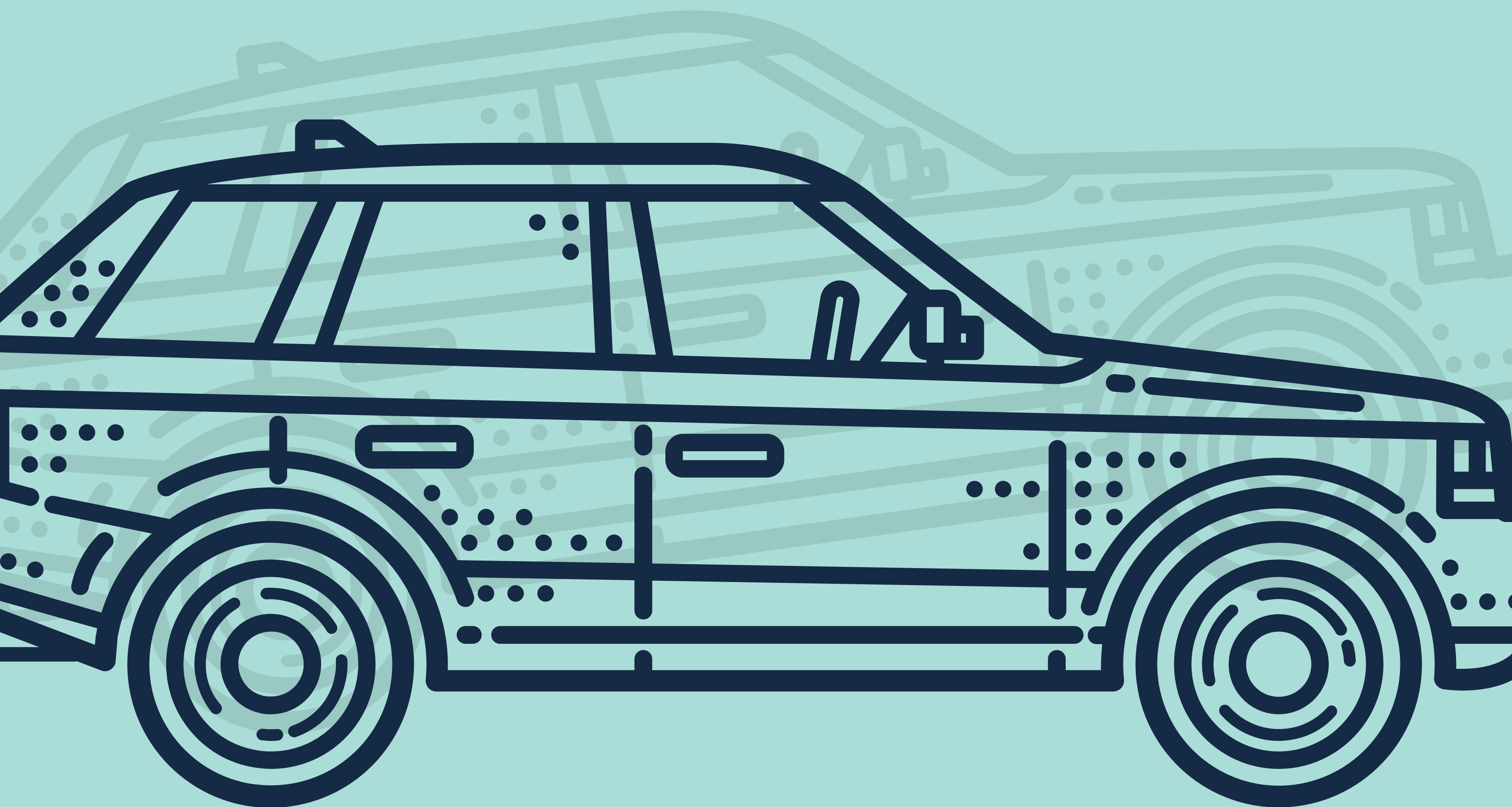


MANIFESTO

THE FUTURE IS BIODEGRADABLE

BIODEGRADABLE CARS ARE AN INNOVATION WHICH COULD HELP TO REROUTE OUR ENVIRONMENT'S CURRENT TRAJECTORY TOWARDS DEMISE. CURRENTLY, MILLIONS OF JUNK CARS ARE LEFT NEGLECTED; THIS ISSUE WILL ONLY BE MAGNIFIED AS THE POPULATION GROWS AND DEMAND INCREASES. HOWEVER, RESEARCH REGARDING **BIODEGRADABLE PLASTIC** COULD BE APPLIED TO CARS. THIS MATERIAL IS ALREADY BEING IMPLEMENTED THROUGHOUT VARIOUS SECTORS; LOCAL SUPERMARKETS HAVE BEGUN TO USE BIODEGRADABLE PLASTIC BAGS. IF THERE WERE A WAY TO CREATE A FAR MORE DURABLE PLASTIC THAT SHARES THE SAME DEGRADABLE PROPERTIES, IT WOULD BE A SUSTAINABLE ALTERNATIVE TO THE MATERIALS CURRENTLY USED IN VEHICLE DESIGNS. APART FROM METAL, CARS OFTEN CONTAIN OVER 260 POUNDS OF PLASTIC WHICH CAN POTENTIALLY BE REPLACED BY BIODEGRADABLE MATERIALS. AT THE SAME TIME, CAR MANUFACTURERS ARE CONSTANTLY SEEKING TO REDUCE THE WEIGHT OF CARS IN ORDER TO CONSUME LESS ENERGY AND THUS EMIT LESS CARBON DIOXIDE. BIODEGRADABLE PLASTIC IS MUCH LIGHTER THAN MATERIALS CURRENTLY USED, FULFILLING THIS OBJECTIVE.

ADVANTAGEOUS FROM TWO PERSPECTIVES, A BIODEGRADABLE CAR IS THE NEXT STEP TOWARDS A SUSTAINABLE EARTH.



THE DESIGN

ALTHOUGH IT IS NOT POSSIBLE FOR AUTOMAKERS TO USE 100% BIODEGRADABLE BIOPLASTIC BECAUSE CARS SHOULD NOT BE DEGRADED BY LIGHT OR MICROORGANISMS, IT IS POSSIBLE TO IMPLEMENT THESE SUSTAINABLE MATERIALS IN OTHER, STILL EFFECTIVE, WAYS.

THE INTERIOR:

THE INTERIOR OF MOST CARS IS LARGELY MADE OF PLASTIC, CREATING THE PERFECT OPPORTUNITY TO USE MORE ECO-FRIENDLY INTERIOR MATERIALS. SPECIFICALLY, THERMOPLASTIC OLEFIN (TPO) PLASTIC SHEETS CAN BE USED TO MAKE THE DASHBOARD AND INTERIOR LINING OF DOORS AND WINDOWS. THIS MATERIAL IS ENVIRONMENTALLY FRIENDLY AND RECYCLABLE, BECAUSE IT BALANCES CARBON DIOXIDE EMISSIONS WITH CARBON REMOVAL BEYOND NATURAL PROCESSES, OFTEN THROUGH CARBON OFFSETTING. THIS IS CALLED CARBON NEUTRAL OR CARBON ZERO. HEADLINING, SEAT COVERS, FLOOR CARPETS, AND MATS CAN ALSO BE MADE OF BIO-PET FIBERS. PET, WHICH STANDS FOR POLYETHYLENE TEREPHTHALATE, IS A FORM OF POLYESTER (JUST LIKE THE CLOTHING FABRIC). IT IS EXTRUDED OR MOLDED INTO PLASTIC BOTTLES AND CONTAINERS FOR PACKAGING FOODS AND BEVERAGES, PERSONAL CARE PRODUCTS, AND MANY OTHER CONSUMER PRODUCTS.

THE EXTERIOR:

THE EXTERIOR, NORMALLY METAL BODY, OF CARS CAN BE MADE FAR MORE ECO-FRIENDLY THROUGH THE USE OF SUGAR-BASED BIOPLASTICS CREATED OUT OF SUGAR AND CARBON DIOXIDE. THE CREATION PROCESS APPLIES LOW PRESSURES AT LOW TEMPERATURES, INSTEAD OF HIGHLY TOXIC CHEMICALS. THIS MAKES IT A SAFER PRODUCTION PROCEDURE AND AT THE SAME TIME, IT REDUCES THE COST OF ITS PRODUCTION. THE SUGAR-BASED BIOPLASTIC HAS SIMILAR PROPERTIES AS IT IS STRONG AND SCRATCH RESISTANT. THE CRUCIAL DIFFERENCE IS THAT THEY CAN BE DEGRADED BACK INTO CARBON DIOXIDE AND SUGAR USING THE ENZYMES FOUND IN SOIL BACTERIA.



Biodegradable cars could revolutionize the transportation industry and change the trajectory of our environments current path towards demise. This design would not only allow users to feel less guilty about their carbon footprint, but offer an easy way for normal people to actively fight against the destruction of our Earth.

BRIDGING THE GAP BETWEEN PASSIVE THOUGHTS AND TANGIBLE ACTIONS, THESE CARS COULD SERVE AS THE FIRST STEP TO PEOPLE LEADING MORE CONSCIOUS AND SUSTAINABLE LIVES.



THE BIODEGRADABLE CAR IS A DESIGN FOR SUSTAINABILITY, AND A DESIGN FOR HUMANITY.

SAVE THE EARTH NOW

GO BIODEGRADABLE

