



GREENMATTER

RESOURCE

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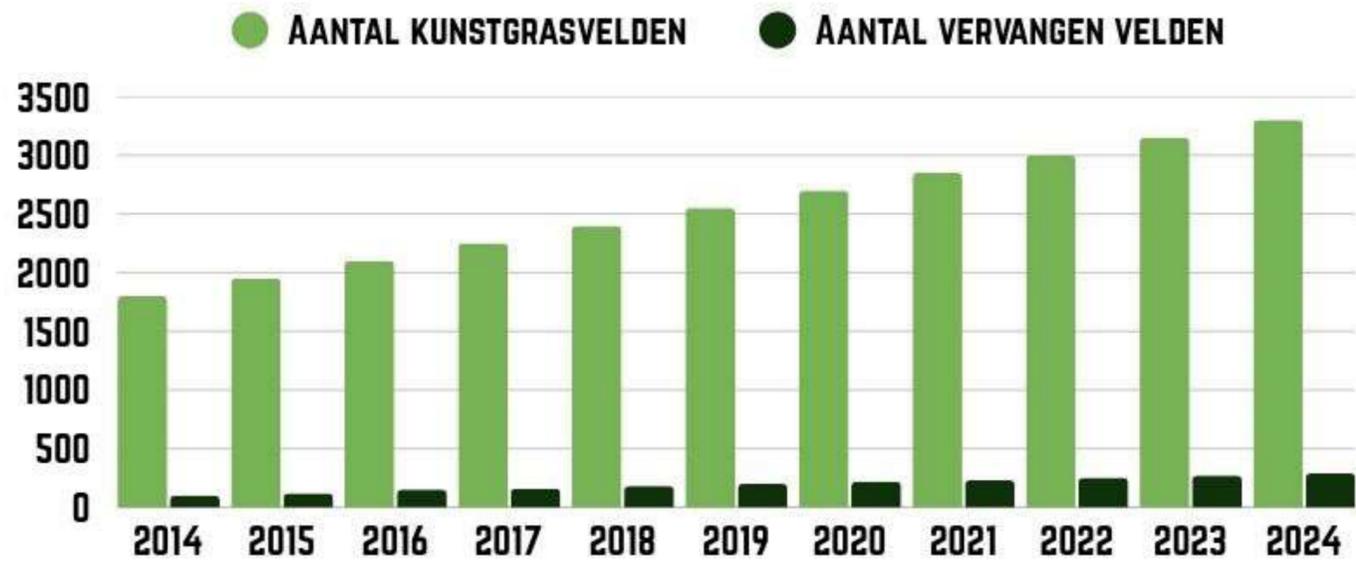
RESOURCE

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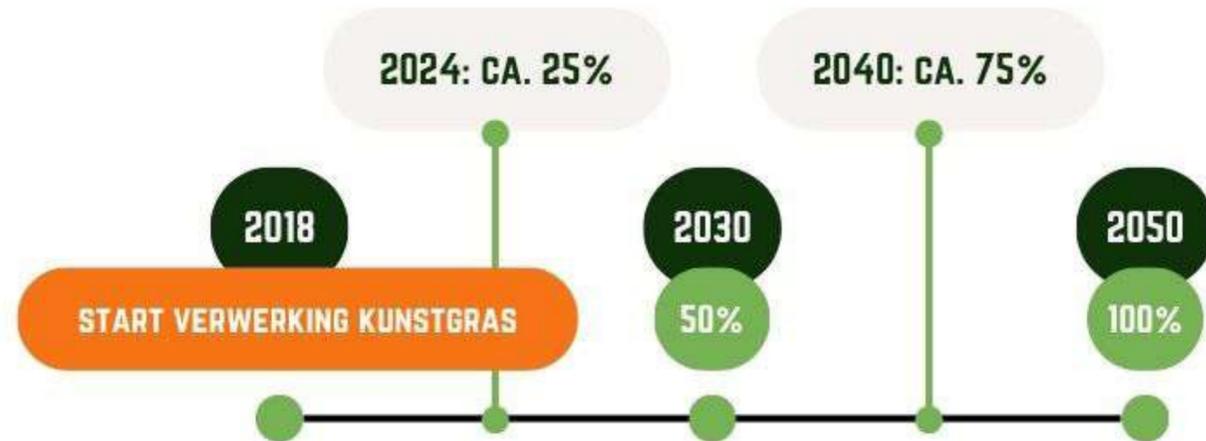
RESOURCE

RESOURCE

RECYCLE THE PRESENT,
SAVE THE FUTURE



DE VRAAG NAAR KUNSTGRAS NEEMT IEDER JAAR MET 5,6% TOE



EEN GOEDE START MAAR OM NEDERLAND IN 2050 CIRCULAIR TE MAKEN, MOETEN WE ONS GEZAMENLIJK NOG MEER INSPANNEN!



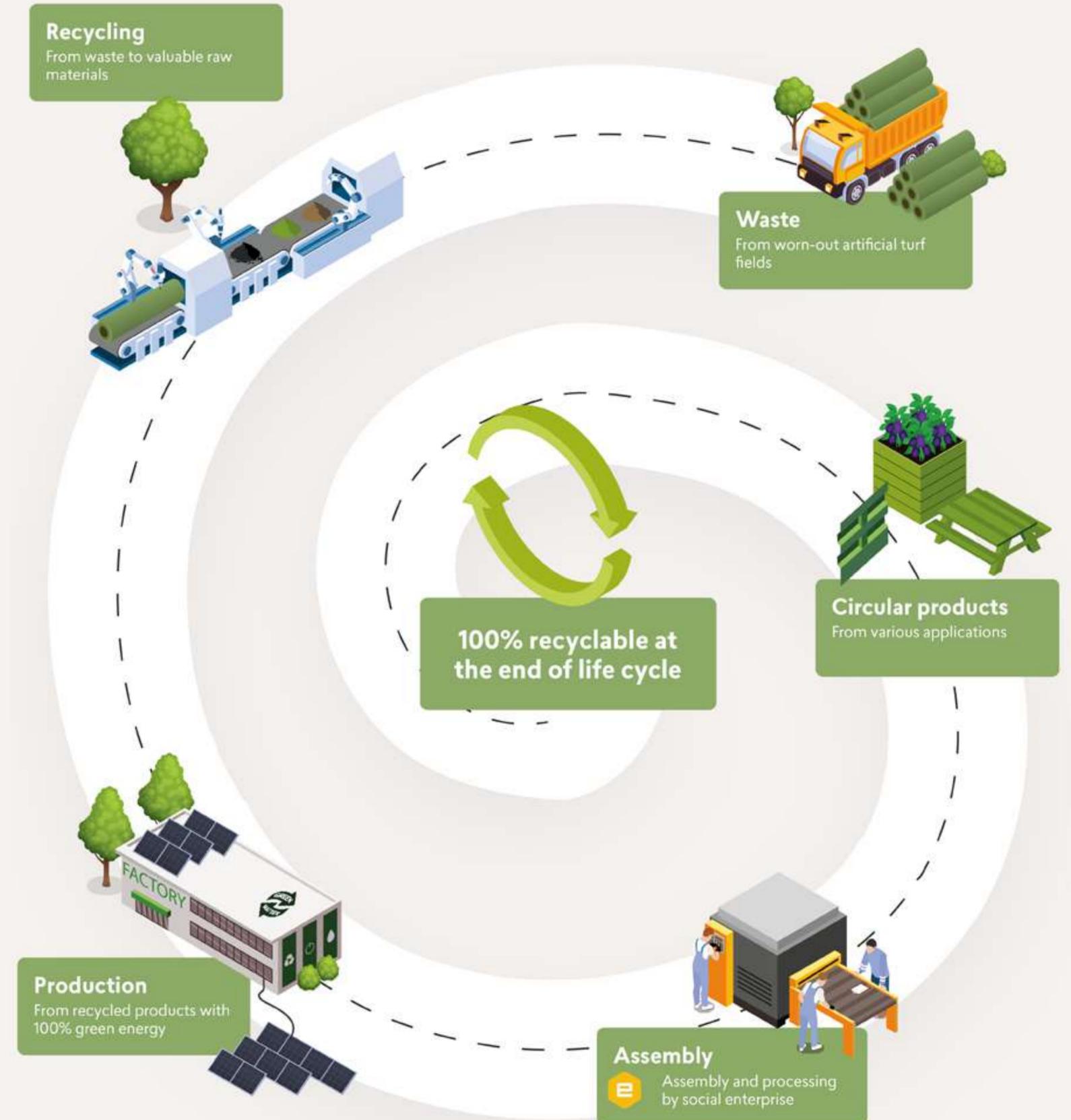
DE HUIDIGE GREENMATTER STAND

PRO-ACTIEVE AANPAK

EEN GROEIENDE VRAAG NAAR KUNSTGRAS
 +
 NADERENDE DEADLINES VAN HET GRONDSTOFFENBELEID
 =
 NOODZAAK TOT PRO-ACTIEVE AANPAK DOOR TE KIEZEN
 VOOR GERECYCLEDE PRODUCTEN

OUR ROADMAP
TO **LESS**
WASTE..

..AND **MORE**
SOCIAL IMPACT!





RECYCLE THE PRESENT

SAVE THE FUTURE

ABOUT GREENMATTER

Since 1975, Lankhorst Engineered Products has been active in making innovative products based on recycled plastics. These products contribute to a cleaner environment because they are made of recycled plastics, are not impregnated and therefore do not release toxic substances into the environment. At the end of their lifecycle, the products can always be recycled again. Plastic waste thus finds a new and long-lasting lifecycle, for example as a bridge, fishing pier or shoring.



OCCUPATIONAL HEALTH AND SAFETY
MANAGEMENT SYSTEM ISO 45001:2018



QUALITY MANAGEMENT SYSTEM
ISO 9001:2015



ENVIRONMENTAL MANAGEMENT SYSTEM
ISO 14001:2015



ABOUT GREENMATTER

RECYCLE THE PRESENT, SAVE THE FUTURE!

GreenMatter is a joint venture between W&H Sports and Lankhorst Engineered Products and has set itself the goal of tackling the waste mountain of artificial grass pitches by developing and producing products from recycled artificial grass from worn-out artificial pitches. When artificial grass pitches are replaced, waste is created and we try to make this a circular process with an extensive delivery programme.

LABEL:
MONITORING RECYCLATES FOR EUROPE



MEMBER OF..
EMEA SYNTHETIC TURF COUNCIL



WINNER PLASTICS RECYCLING AWARD EUROPE 2020

GreenMatter has received the award in the category Building & Construction Product of the Year'. This award strengthens us in our mission to reduce the growing mountain of artificial grass waste. Plenty of challenges ahead!



EMPATEC

For any processing and assembly of our GreenMatter products, we use the services of Empatec. Empatec is a social work company for people with a distance to the labour market.



PROCESSES STARTED ALREADY

PROCESS HAS YET TO GET OFF THE GROUND



WASTE

ARTIFICIAL TURF PITCHES ARE BEING PROCESSED

RECYCLE

SETTING IN MOTION THE REUSE RAW MATERIALS

RE-USE

APPLY CIRCULAR PRODUCTS

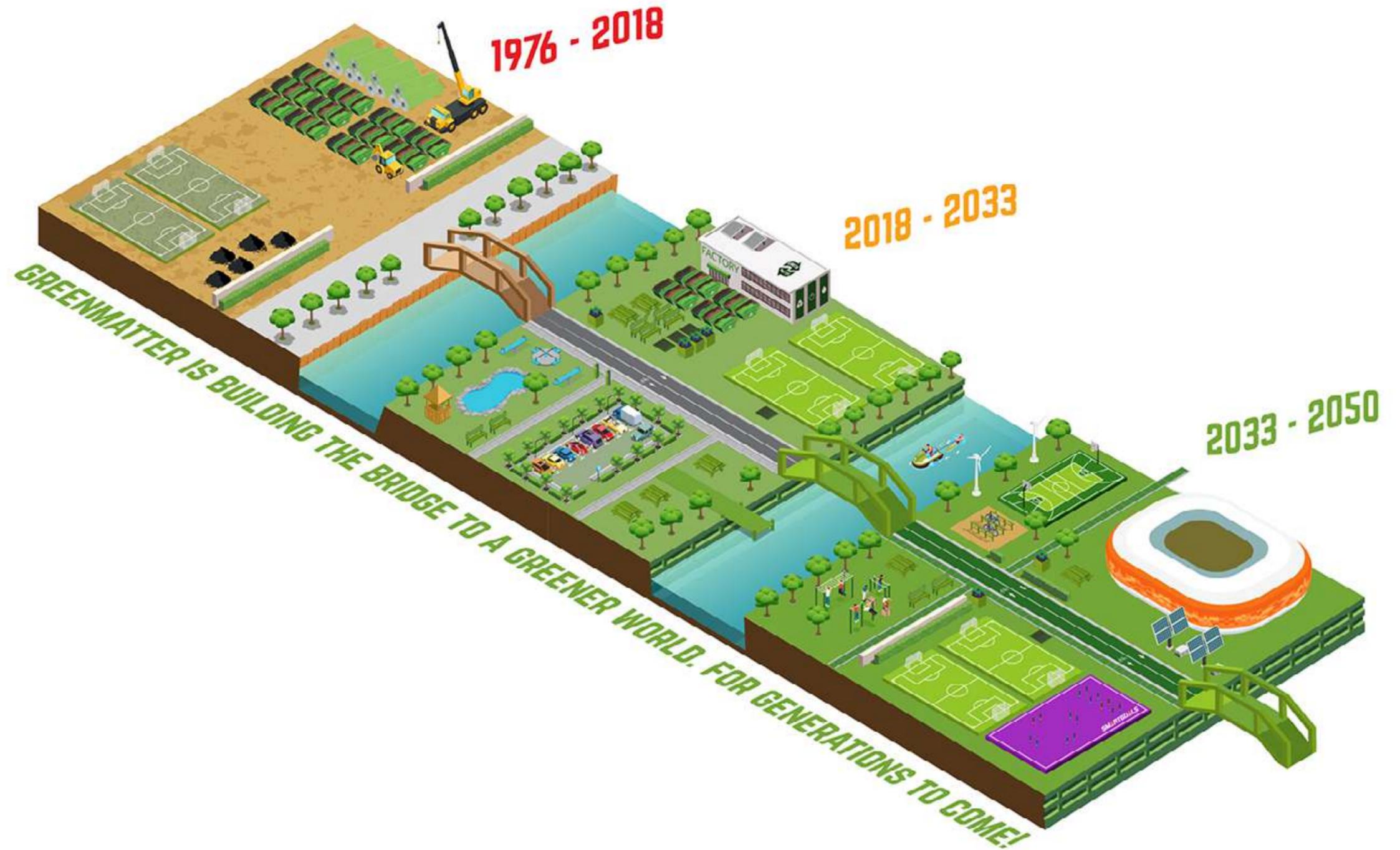
ROADMAP GREENMATTER

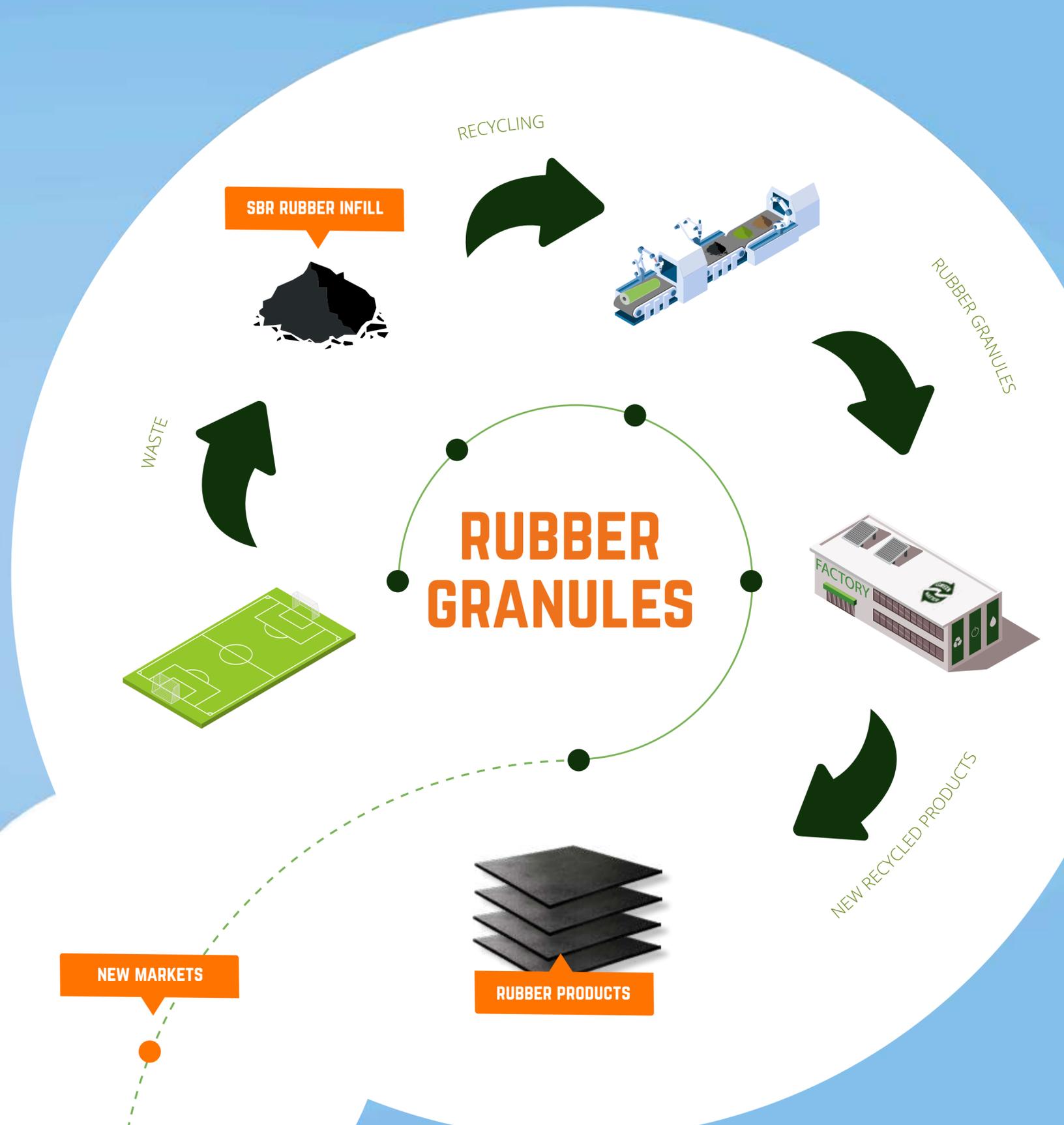
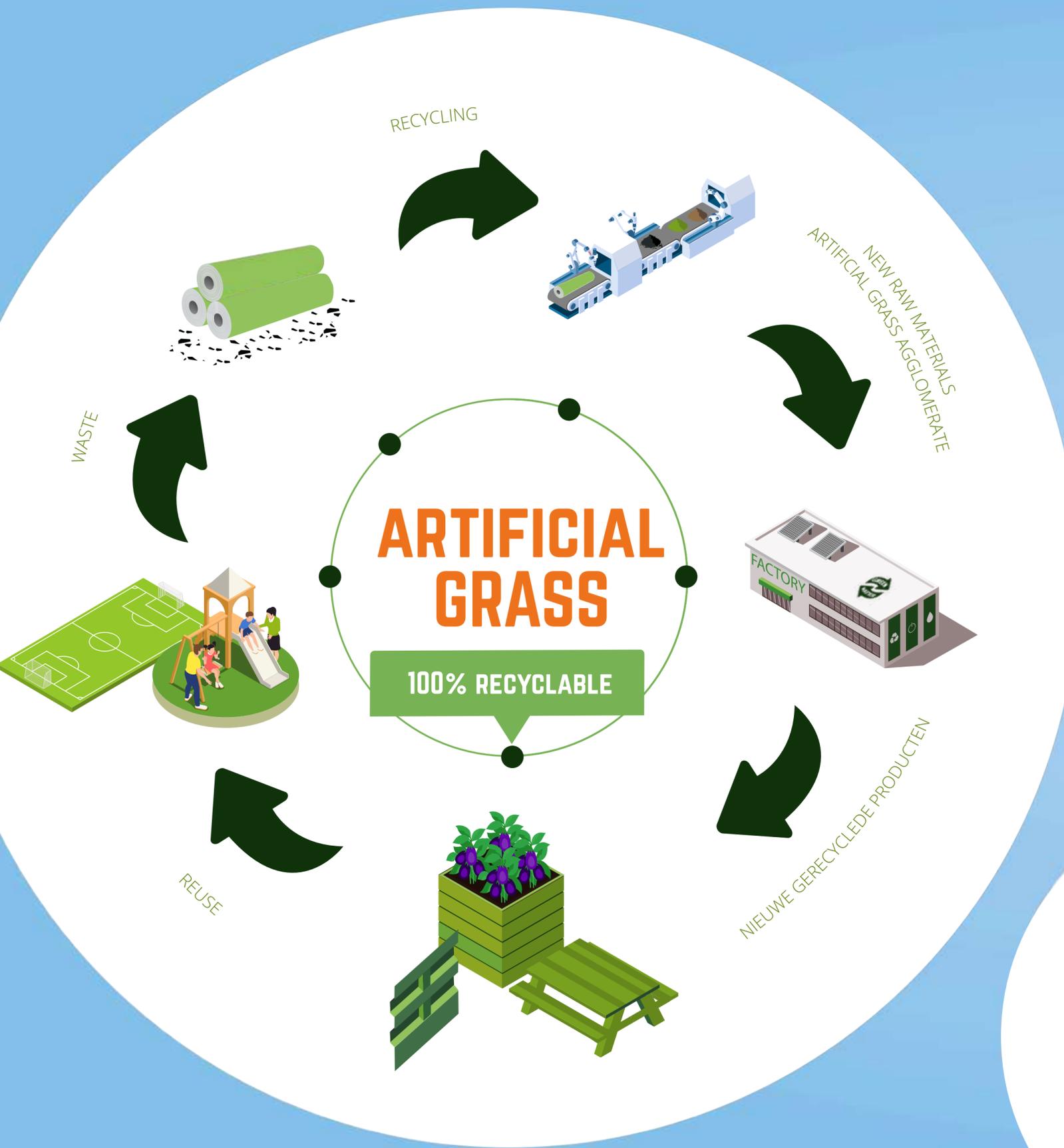
MISSION

Converting waste from artificial grass pitches into a circular raw material flow by manufacturing recycled products.

VISION

We would like to give substance to the circular issues surrounding the waste from artificial grass pitches in order to make a lasting difference as a provider of circular solutions.







ARTIFICIAL GRASS

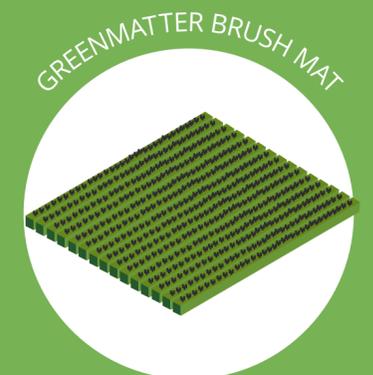
CIVIL CONSTRUCTION



OUTDOOR FURNITURE



PREVENTATIVE MEASURES INFILL & MICROPLASTICS



THE ARTIFICIAL GRASS WASTE CALCULATOR

SUSTAINABLE MENU CARD

- 400 M2 ECORASTER (GRASS)TILES.....2.205 KG
- 200 M RIVER BANK PROTECTION.....3.559 KG
- FIELD SIDE BOARDS.....2.599 KG
- 93 PIECES GREENMATTER SOLAR.....233,5 KG
- 12 PIECES PICKNICKTABLES.....1.290 KG
- 12 MODULAR SPORTS FLOOR.....1.080 KG
- 1 FISHING PIER.....670 KG
- 5 PLANTERS.....1.005 KG
- 5 BOLLARDS.....357KG
- DECK PLANKS BRIDGE.....671 KG
- BEAMTABLES.....630 KG

HEY MUNICIPALITY, HOW CIRCULAR ARE YOU IN THE DISPOSAL OF YOUR ARTIFICIAL GRASS PITCHES?

TRY IT!

VARIOUS CALCULATION EXAMPLES

1X + 1X =

ECORASTER (GRASS)TILES (400M2) / 2205KG + **RIVER BANK PROTECTION (200M1) / 3559KG**

Total kilos of artificial grass fibres processed: **5.764KG**

Percentage of artificial grass pitch(es) recycled: **52%**

= FUTUREPROOF

5X + 1X + 1X + 1X =

PICNIC TABLE 2 BENCHES / 258KG + **FISHING PIER (5X4M) / 671KG** + **ECORASTER (GRASS)TILES (400M2) / 2205KG** + **SIDE BOARDS (93 PIECES) / 2599KG**

Total kilos of artificial grass fibres processed: **6.599KG**

Percentage of artificial grass pitch(es) recycled: **60%**

= FUTUREPROOF

2X + 5X + 1X + 1X =

MODULAR SPORTS FLOOR (200M2) / 540KG + **PLANTER / 141KG** + **SIDE BOARDS (93 PIECES) / 2599KG** + **RIVER BANK PROTECTION (200M1) / 3559KG**

Total kilos of artificial grass fibres processed: **8.320KG**

Percentage of artificial grass pitch(es) recycled: **76%**

= FUTUREPROOF

SPORTS



Modular sports flooring



Fitnesspark basic



Fitnesspark athletic



QR-FIT bench



Side boards



Hockey boards



Fitness platform



Dressing room bench

SPORTS



Bench slats



Dugout



Stadium seating



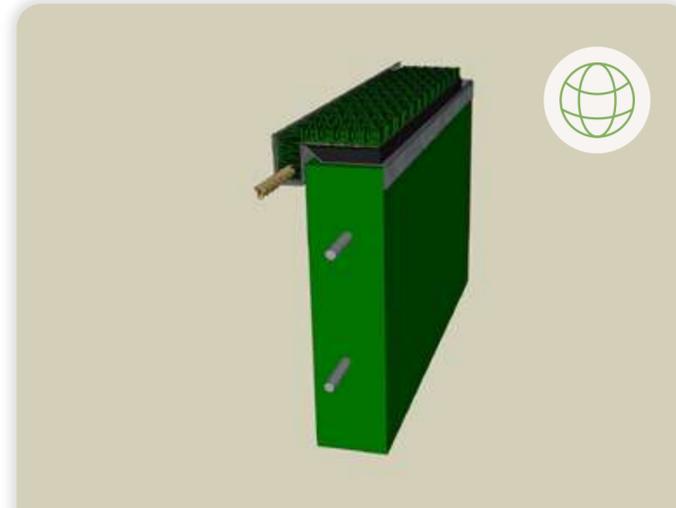
Bleacher



Grandstand slats



Foot sweeper



Kerb clamping system

OUTDOOR SPACE



Flower boxes



Trash can enclosure



Picnic set (2 benches)



Picnic set (4 benches)



Park bench



Mobile bench
with backrest

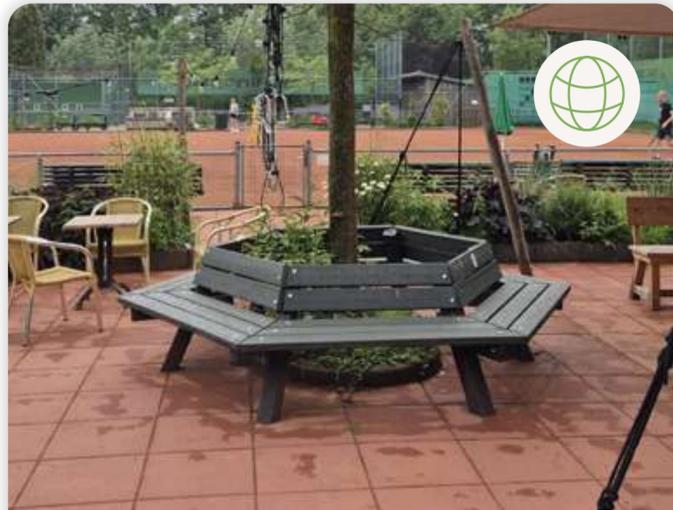


Bench without backrest



Raised bench

OUTDOOR SPACE



Tree bench



Wheelchair friendly picnic table



Stand table



Team table



Mobile bench

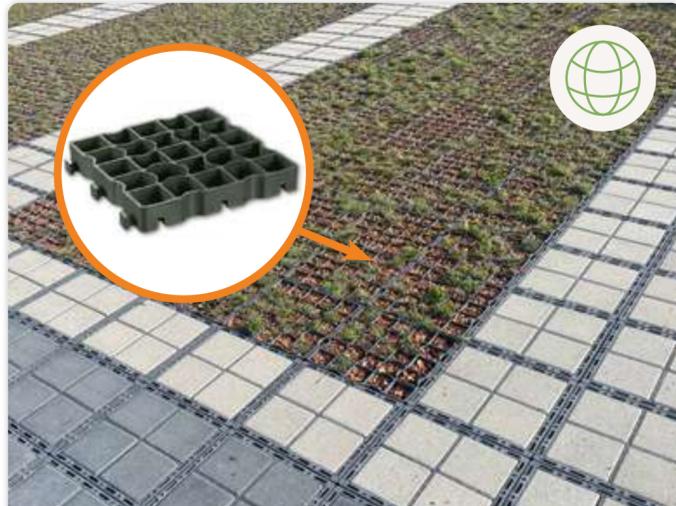


Bench for public space

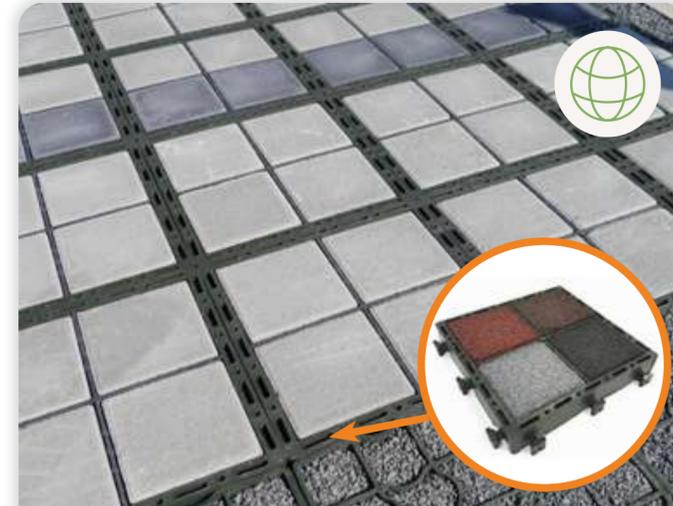


Mobile picknick set (4 benches)

CIVIL ENGINEERING



Ecoraster (grass)tile



Ecoraster bloxx



Green parkingspots



River bank protection



Combi pile planking



Bollard



Reflector post



Edging boards

CIVIL ENGINEERING



OTHER



Solar



Green roof frame



Bicycle parking system



Deck plank grip strip



Bridge parts



Pole



Boarding



Deck planks

OTHER



Facade cladding



Fishing pier



Brush mat



Kingfishers wall



Dogpark

PRACTICAL EXAMPLE

NUMBERS

- Old artificial grass fields with infill; > 35,000 fields worldwide.
- 9,000 old artificial grass fields must be replaced before 2022.
- An average artificial grass football pitch is 7,600 m² and weighs 250 to 350 tons.
- An average artificial grass field contains 60% sand, 30% performance (rubber) infill, 5% backing and 5% artificial grass fiber.
- The most common performance infill is SBR infill; granulated car tires.

PROBLEM

Many artificial turf fields have been installed since the beginning of this century, but too little thought has been given to how to deal with them when they need replacement



Waste per field
21.000 KG

Synthetic turf fibers
11.000 KG

Backing
10.000 KG

SOLUTION (EXAMPLE)



GREENMATTERS SOLUTIONS



VIDEO'S



Wondering how this grass tile is made? Watch the video!



Want to know how our modular sports floors are produced? Check the video!



CASESTUDY: From worn-out artificial grass pitch to recycled modular sports floor. Check it out!



CASESTUDY: The contribution of the municipality of Haarlemmermeer contribution to a greener future to a greener future



CASESTUDY: Completely recycled bicycle bridges from GreenMatter. Watch the video!



CASESTUDY: Amsterdam municipality leading the way on circularity. Check the facts!



We recycle SBR rubber into new sports tiles. Want to know how? Check the video



QR-FIT bench not only multifunctional but also challenging!



Re-Match



GBN-AGR



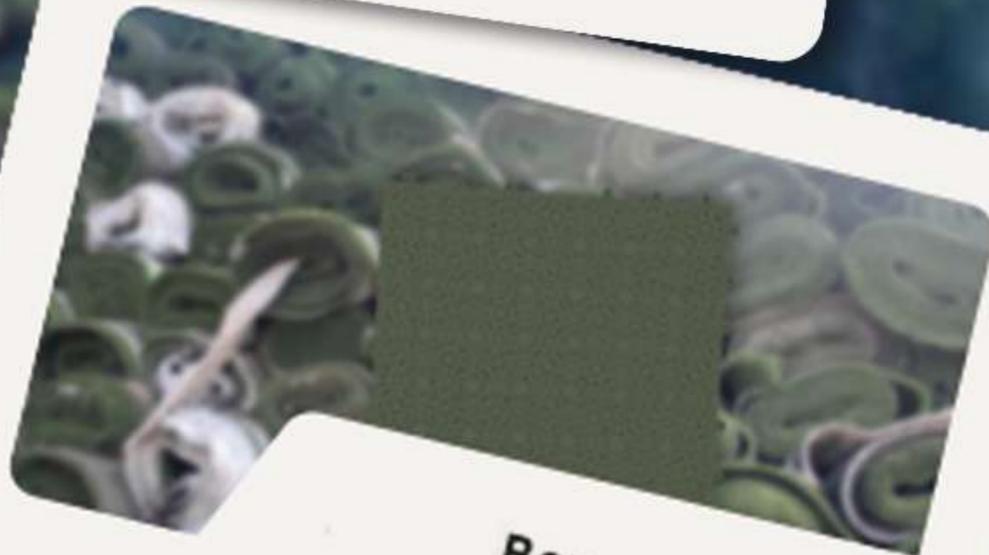
Purus



QR-FIT



Daplast



Bergo Flooring



SolarWoodle



KUCK FITNESS



Sam Green



Empatec



DOWN- OF UPCYCLEN?



**AVERAGE LIFESPAN OF AN
ARTIFICIAL TURF PITCH**
10 YEARS

**LIFESPAN OF AN
ARTIFICIAL TURF PITCH**



**AFTER 10 YEARS OF USE,
WASTE IS CREATED**

**LIFESPAN OF
GREENMATTER
PRODUCTS**



**EXPECTED LIFETIME OF
GREENMATTER PRODUCTS IS**
50 YEARS

**GREENMATTER PRODUCTS
CAN BE 100% RECYCLED
AFTER LIFESPAN**



RAW MATERIAL #2

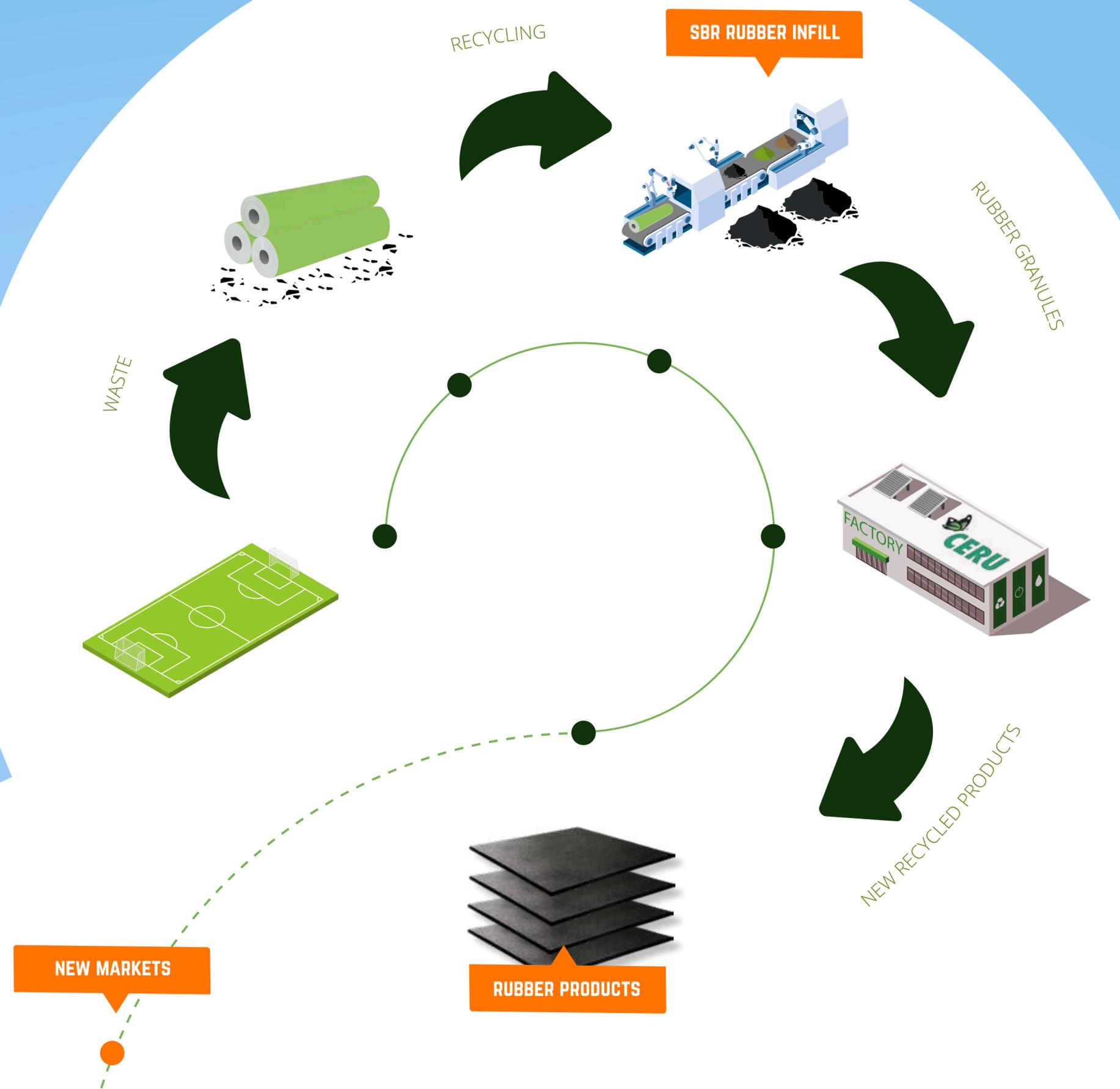
RUBBER SBR INFILL

RUBBER PRODUCTS

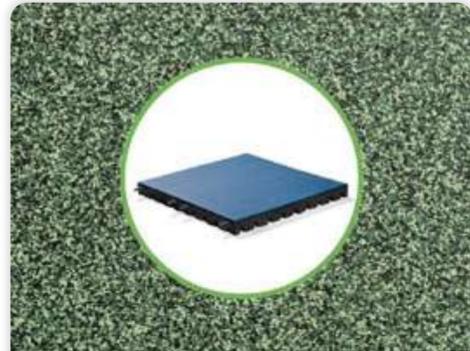


GREENMATTERS

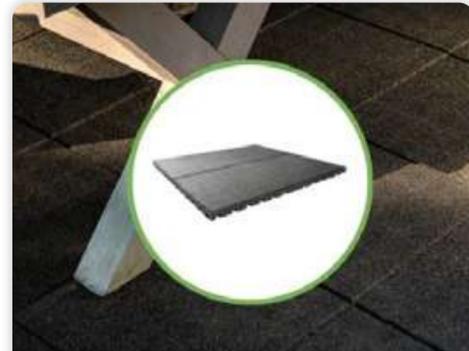
ROAD TO A GREENER PLANET



DELIVERY PROGRAM



**GREENMATTER RELIFE®
COLOURPLAY TILE**



**GREENMATTER RELIFE®
MULTIDRAIN TILE**



**GREENMATTER RELIFE®
FITFLEX TILE**



**GREENMATTER RELIFE®
GRASSPLAY TILE**



**GREENMATTER RELIFE®
BASEPLAY TILE**



**GREENMATTER RELIFE®
LAWNPLAY TILE**





THE EARTH
100% CIRCULAR

