



**GREENMATTER**

**RECYCLE THE PRESENT, SAVE THE FUTURE!**





**RECYCLE THE PRESENT**



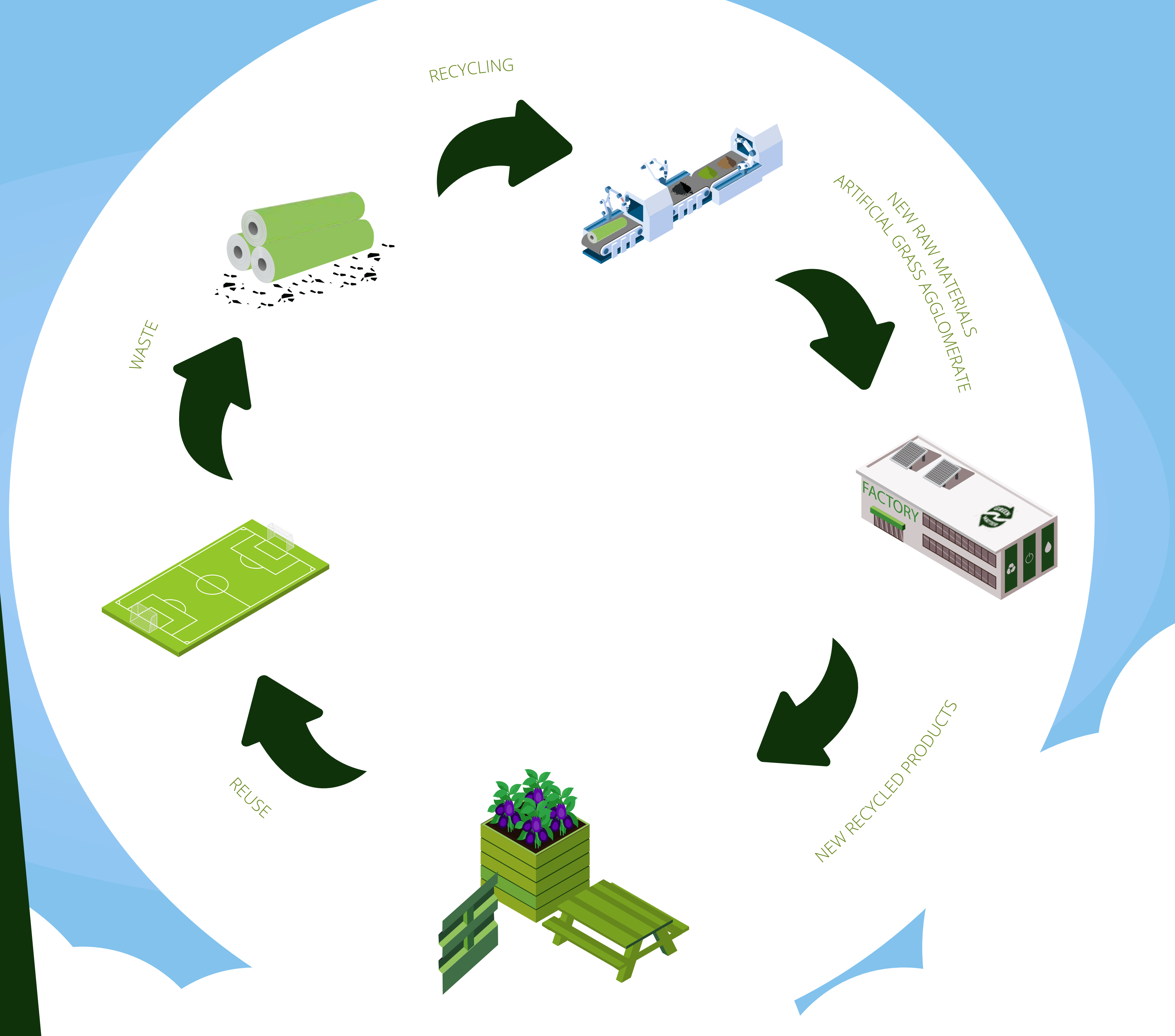
**SAVE THE FUTURE**



**GREENMATTERS**

# ROAD TO A GREENER PLANET

**HOW DO WE GET TO A GREEN AND CIRCULAR ECONOMY TOGETHER?**



# OVER 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



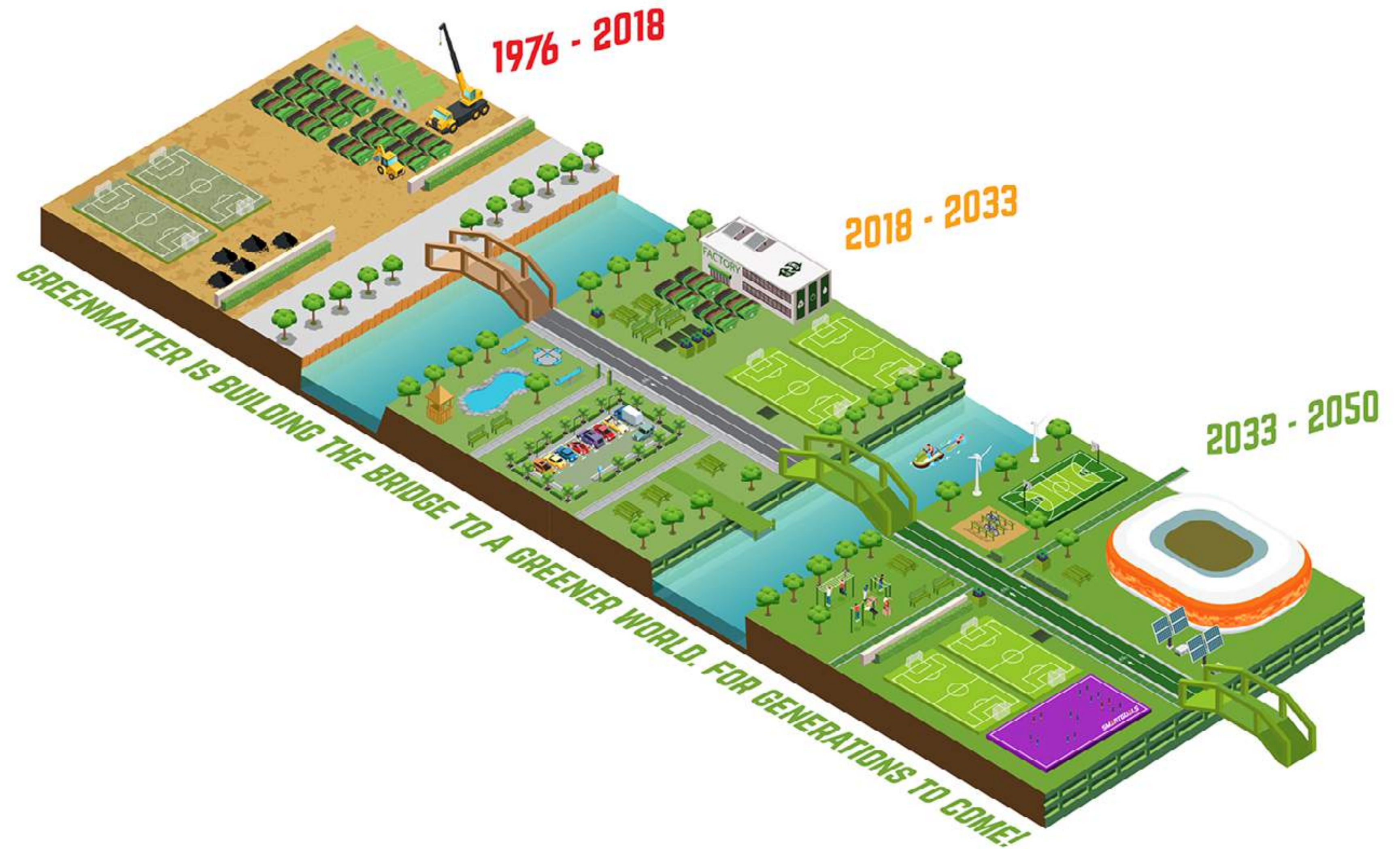
# ROADMAP GREENMATTER

## MISSION

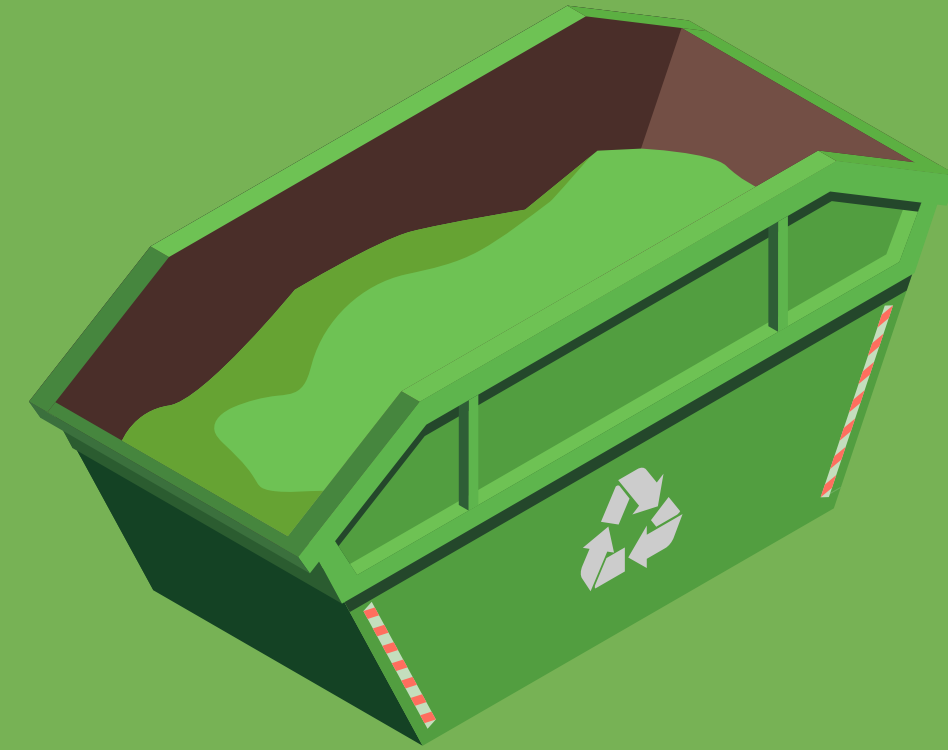
Converting waste from artificial grass pitches into a circular raw material flow by manufacturing recycled products.

## 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

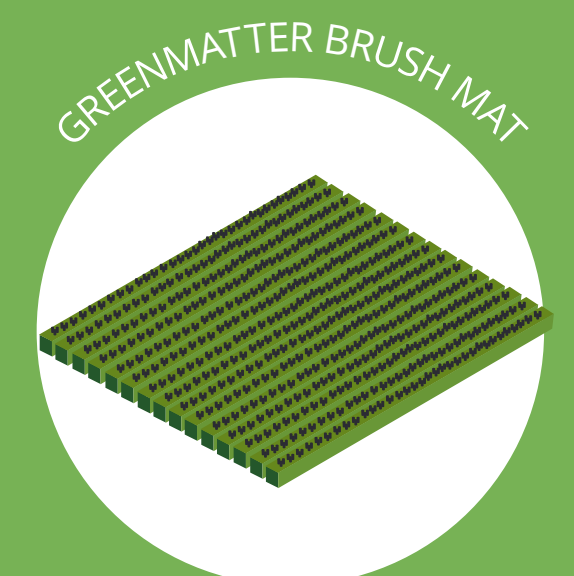
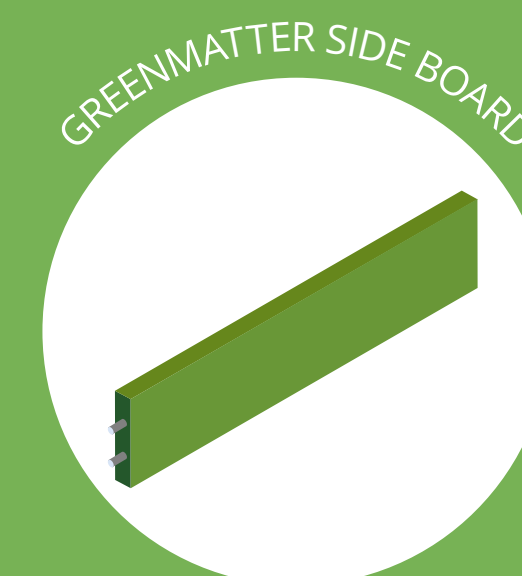
## CIVIL CONSTRUCTION



## OUTDOOR FURNITURE

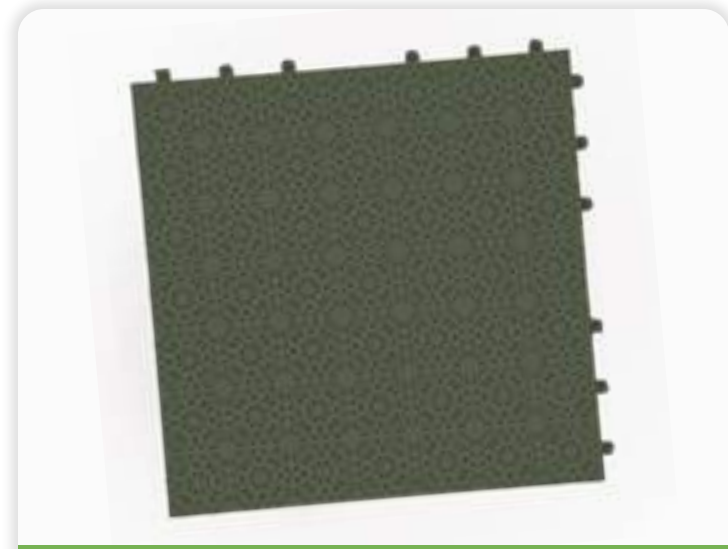


## PREVENTATIVE MEASURES INFILL & MICROPLASTICS





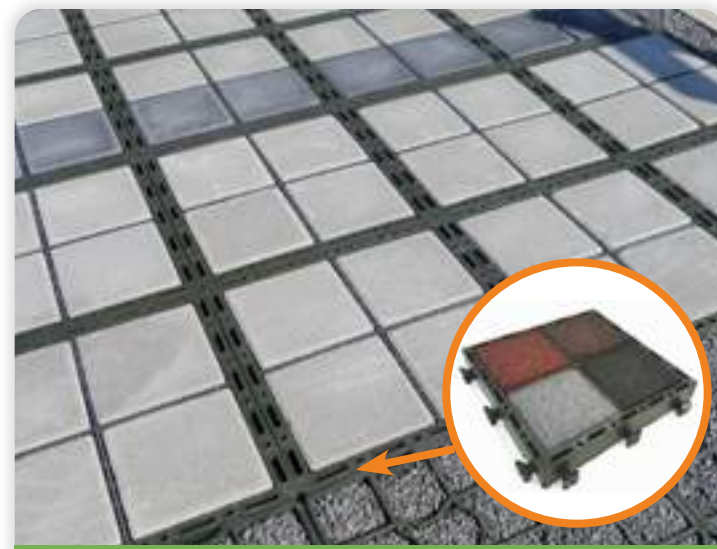
# PRODUCT RANGE



MODULAR SPORTSFLOORING



ECORASTER (GRASS)TILE



ECORASTER BLOXX



SOLAR



GREEN ROOF FRAME



RIVER BANK PROTECTION



COMBI PILE PLANKING



PICNIC SET (2 BENCHES)



PICNIC SET (4 BENCHES)



PARK BENCH



MOBILE BENCH



BENCH WITHOUT BACKREST



RAISED BENCH



DRESSING ROOM BENCH



TEAM TABLE



FLOWER BOXES



SIDE BOARDS



DECK PLANK GRIP STRIP



# DELIVERY PROGRAM



FACADE CLADDING



BRIDGE PARTS



FISHING PIER



POLE



BOARDING



HOCKEY BOARDS



TREE BENCH



BENCH SLATS



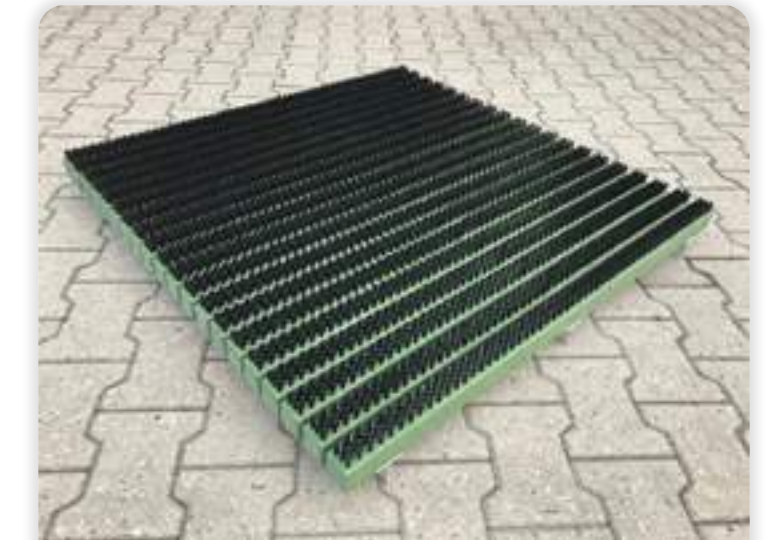
STADIUM SEATING



TRIBUNE



TRIBUNE SLATS



BRUSH MAT



FITNESS PLATFORM



BOLLARD



EDGING BOARDS



DECKING PLANKS



WHEELCHAIR FRIENDLY  
PICNIC TABLE



STAND TABLE



# DELIVERY PROGRAM

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KERB CLAMPING SYSTEM



MORE PRODUCTS TO COME..



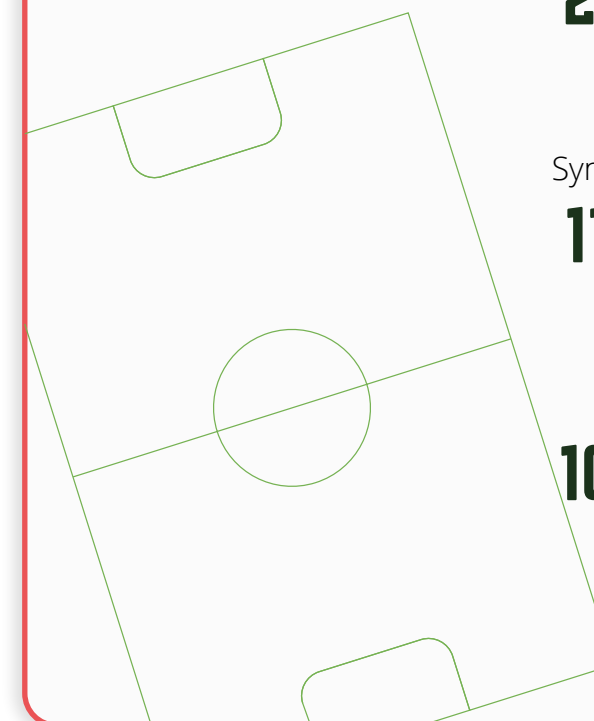
# PRACTICAL EXAMPLE

## 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 m<sup>2</sup> 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

Since the turn of the millennium, many artificial grass fields have been laid and too little thought has been given to how to deal with the fields that need replacing.



Waste per field  
**21.000 KG**

Synthetic turf fibers  
**11.000 KG**

Backing  
**10.000 KG**

## SOLUTION (EXAMPLE)



**GREENMATTERS SOLUTIONS**







**GREENMATTERS  
SOLUTIONS**





**GREENMATTERS  
SOLUTIONS**





# DOWN- OR UPCYCLING?



**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**



**THE EARTH**  
**100% CIRCULAR**

