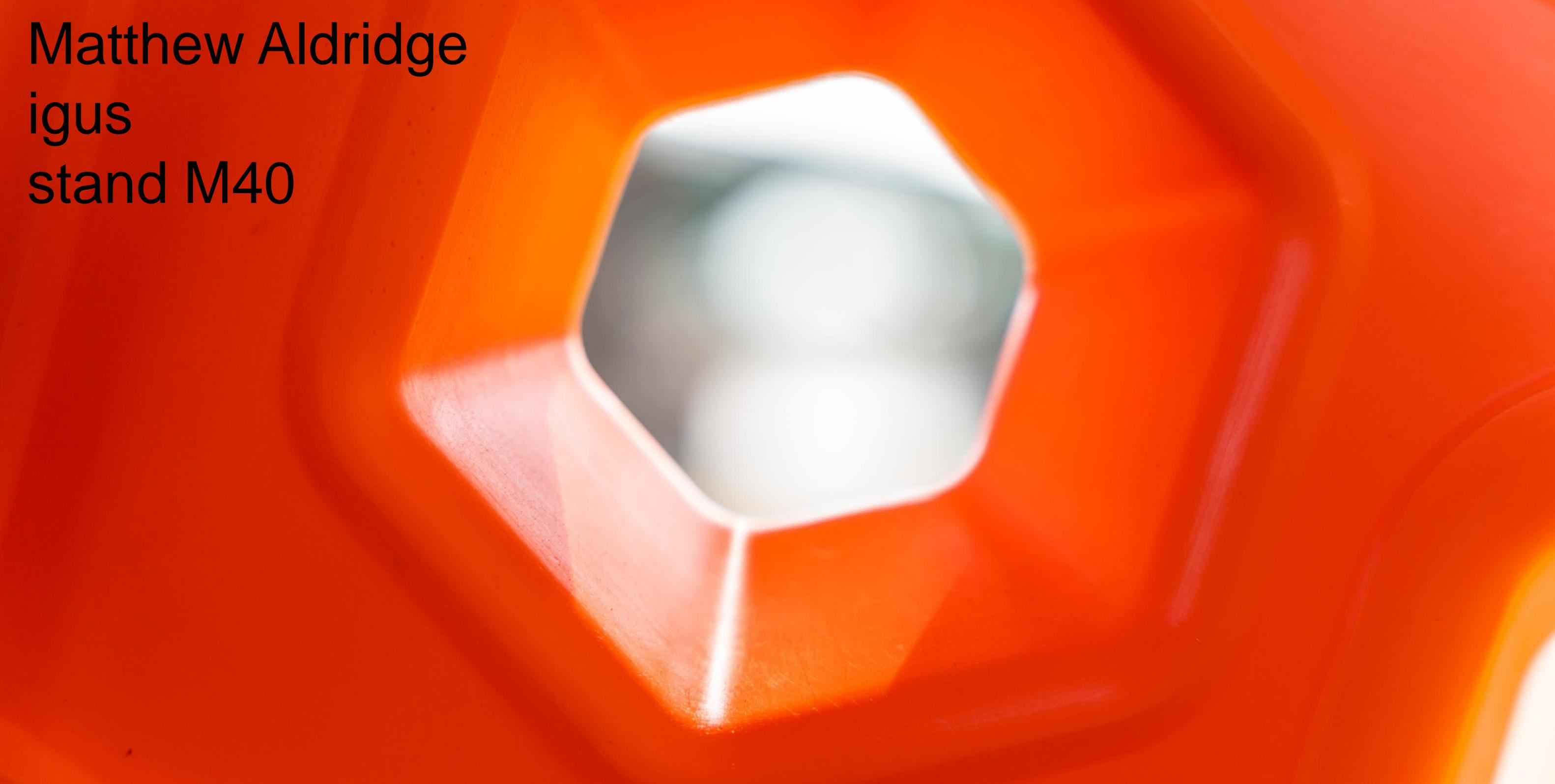


Matthew Aldridge  
igus  
stand M40



**"Improve what moves" with motion plastics®**



#techup #costdown #motionplastics #tribopolymer #igus #zeroplasticwaste #easiestcompanytodealwith #nooil #nolubrication #anyenergy



Smart monitoring

High loads

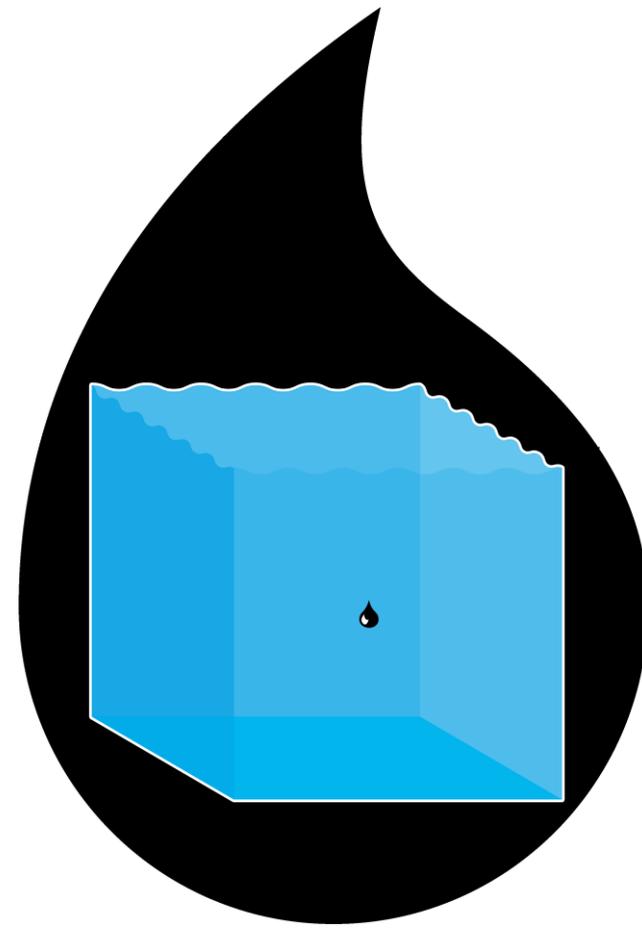
All types of movement

No lubrication

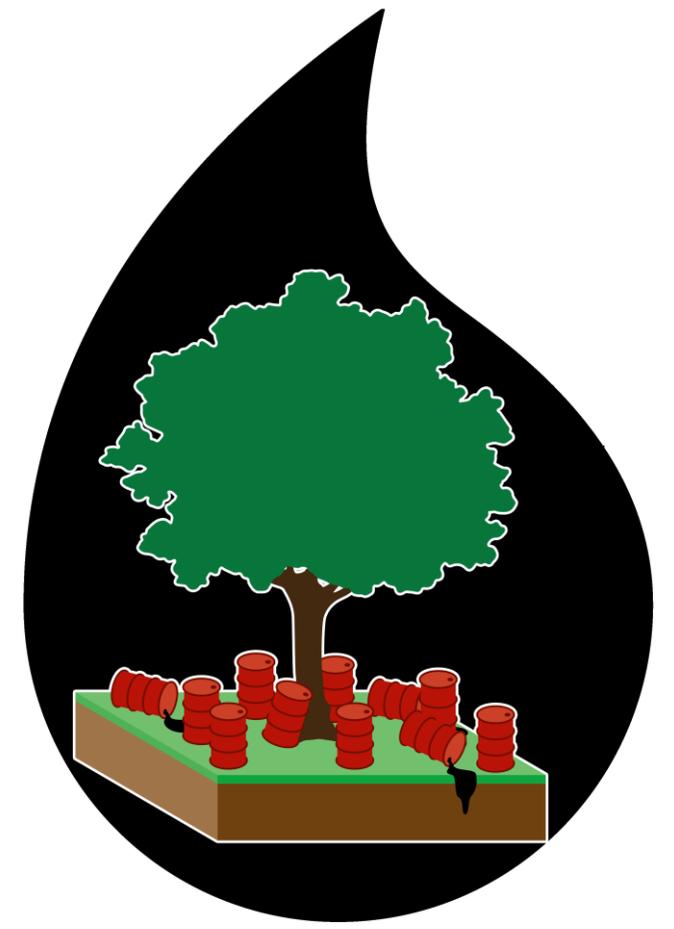
Sustainable



"50% of all lubricants sold worldwide end up in the environment"  
(M. P. Schneider, 2006)



"One litre of used oil can contaminate one million litres of water."  
(Saskatchewan Association for Resource Recovery Corp., 2008)



"27 million litres of grease pollute the worldwide environment every year"  
(M. P. Schneider, 2006)



# The problem



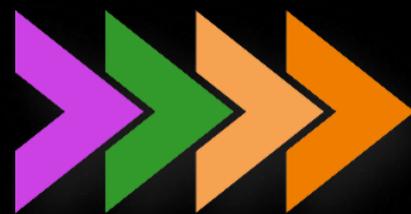
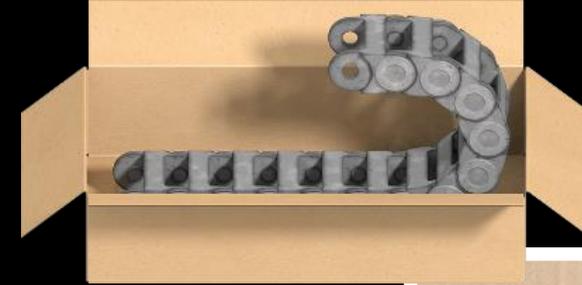
## Plastic waste is increasing in landfill, in our seas and oceans

- Over 300 million tons of plastic are produced every year for use in a wide variety of applications.
- At least 14 million tons of plastic end up in the ocean every year
- Plastic makes up 80% of all marine debris found from surface waters to deep-sea sediments.
- Stats from IUCN, International Union for Conservation of Nature

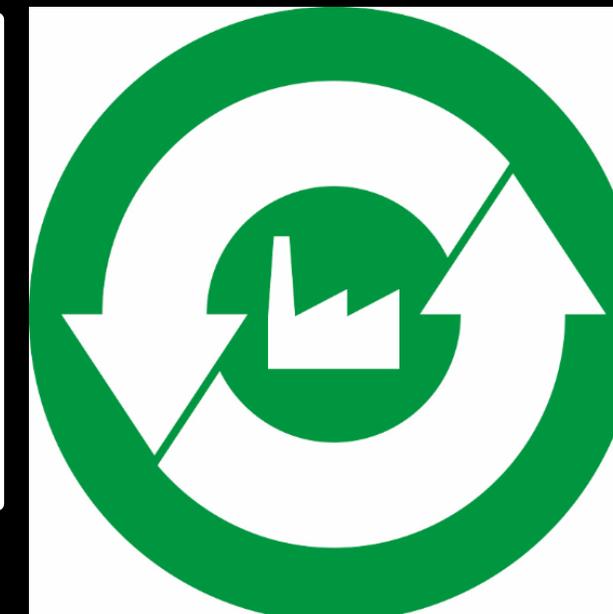
## igus has a global sustainability commitment

- we now reuse 99% of our plastic waste by processing it into granulate material and recycling it back into the production process
- Longer lasting products that do not require lubrication contribute to preserving our environment
- In 2021, igus achieved **31.2% less CO2 emissions** than in 2020, relating to Scope 1 and Scope 2 emissions.





# CO<sub>2</sub> neutrality and zero plastic waste



**"Improve what moves" with motion plastics®**



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# The igus:bike

**World's first urban bike made from recycled plastic – by igus**

UK launch: Engineering Expo 8th June

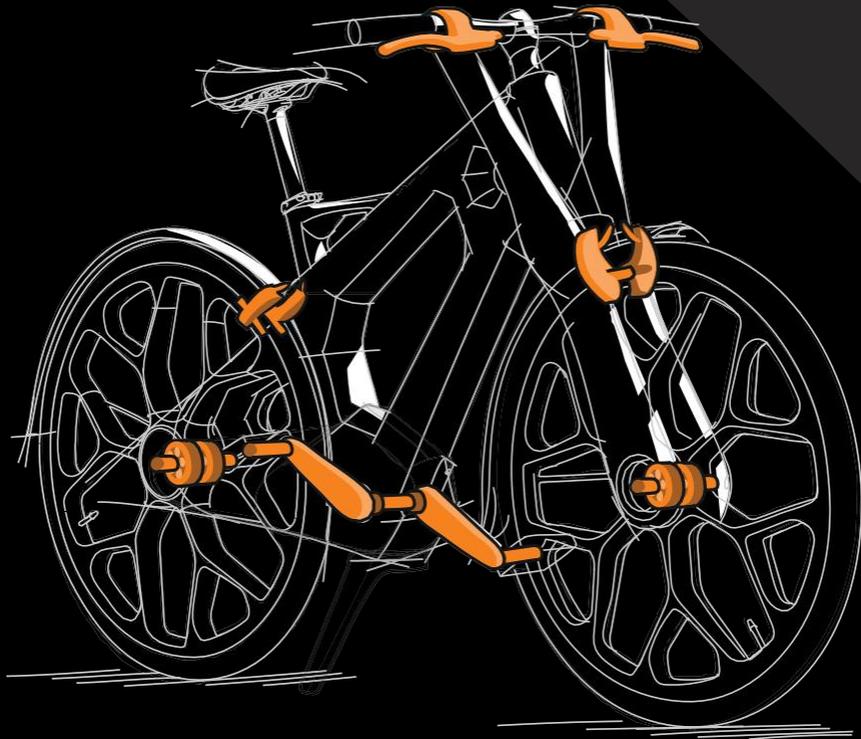


## **World's first urban bike made from recycled plastic**

- **Corrosion-resistant**
- **Lubrication-free and maintenance-free**
- Frame, wheels, crank, v-chain, forks: all parts except seat parts, seat post and tyres are plastic
  
- Launch bike is made of virgin plastic. Full recycled plastic bike by December
- Designed to help solve rising plastic waste crisis
- Part of igus's global decarbonisation and zero carbon project
  
- Frame is made by MTRL (DUTCHFRIETS)

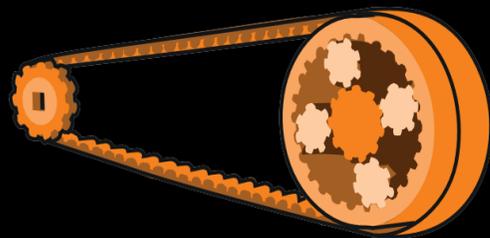
**from ocean plastics to motion plastics®**

# the igus:bike



- maintenance-free
- reduces carbon-intensive metal parts
- creates a use for waste plastic, avoiding landfill and environmental pollution.

2. The igus:bike online platform is an open source platform to specify and order the bike. Vendors and customers can customise their own bikes from a wide range of components and variants



Unique drive unit made of solid plastic

## Plastic moving parts



### Brakes

Cantilever brakes and brake levers are made of plastic



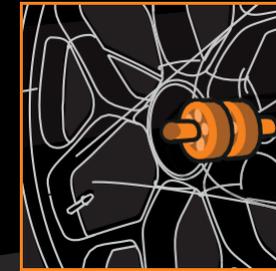
### Front and rear hubs

Hubs use lubrication-free bearings – predicatble wear and no maintenance



### Crank & pedals

Bottom bracket bearings made of solid plastic. Maintenance-free



### Transmission

Single speed gear. Multi-gear and e-drive at R&D stage



### Toothed belt drive

Smooth and no lubrication



**motion plastics®**  
Tech up, Cost down.  
Innovation  
Clean  
Digital

# igus:bike's genesis

Idea conceived by igus CEO Frank Blase

Frame designed and manufactured by MTRL, formerly DUTCHFIETS, in the Netherlands

Engineering support and technical components from igus

Full recycled plastic version available in December



## LOW MAINTENANCE

Thanks to the self-lubricating properties of the bearings, nothing has to be lubricated or greased.



## ZERO CORROSION

Resistant to weather, water, and UV light. Nothing is made of metal. Forget garages and covered parking spaces. Nothing rusts here.



## SUSTAINABLE

No oil and grease - good for the environment as well as for clothing and hands.



## LONG SERVICE LIFE

This bike was tested where industrial products are normally put through their paces.



## ZERO STRESS

Just ride. That's all you have to do.



## UNIQUE

Be one of the first pioneers for new Urban Mobility.



## EYE-CATCHING

You are guaranteed to stand out, whether you want to or not.



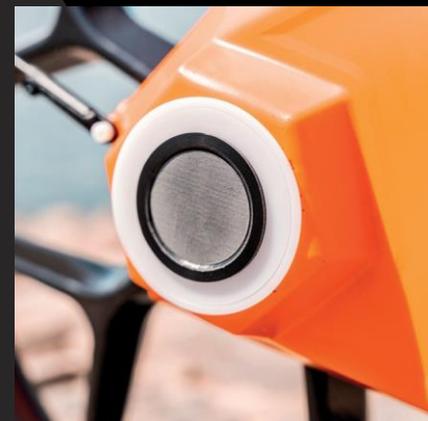
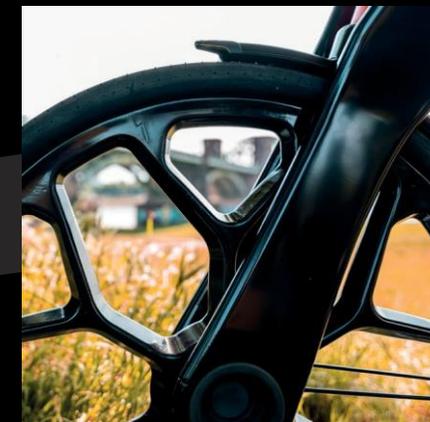
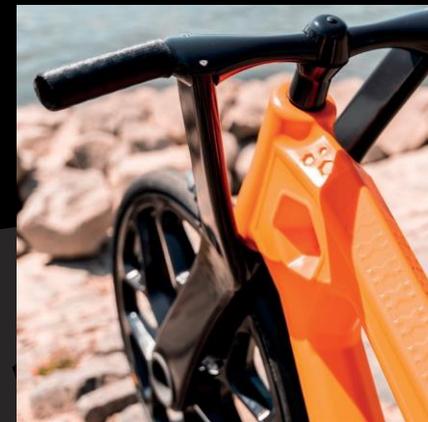
**motion plastics®**  
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# The igus:bike online platform

## CALL FOR PARTNERS

We are looking for strong corporate partnerships to achieve our vision: the production of sustainable, durable, maintenance-free bicycles from recyclable materials.

We would be happy to hear from you.



Thank you for listening!

Questions?

Join us on our  
journey!



igus®  
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Northampton  
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