

**unisport**  <sup>TM</sup>



**23 / 7 / 400 / 9000**



A close-up, low-angle shot of a person's legs in blue shorts and blue sneakers running on a green artificial turf field. The background is a blurred sunset scene with other people in the distance.

Live to move. Move to live.

Unisports vision

***Et sundere samfund***

An aerial view of a football pitch built on a steep, rocky cliffside. The pitch is green with white markings. The surrounding area is rugged and rocky, with some buildings and a road visible. The sea is visible in the background.

Bæredygtige løsninger





Bæredygtige løsninger

Egen produktion







Unisport implementerer ca. 1,2 mio. M2  
kunstgræs i hele Skandinavien





Sundby Idrætspark, København



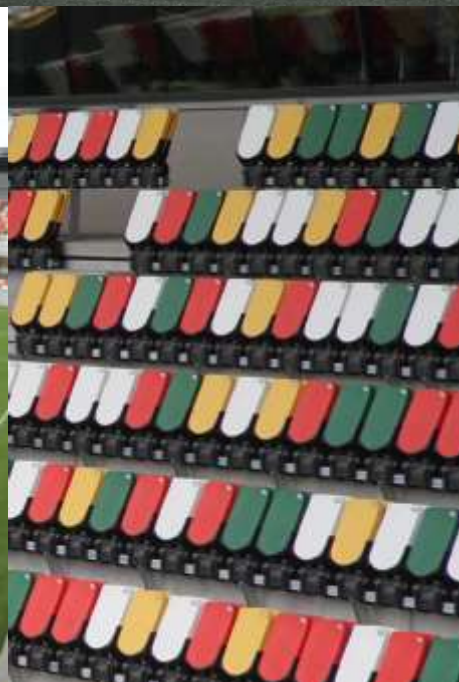
OB's Træningsanlæg



Helsingør Stadion



Jysk Park, Silkeborg



Vejle Boldklub



# *Udfordringer:*

- *Behov for flere sportsfaciliteter (herunder kunstgræsbaner), så flere bliver aktive.*
- *Udfordring med mikroplast – ca. 450-900 tons fra kunstgræsbaner pr. år iflg. Miljøstyrelsen (2015).*
- *Udfordring med udledning af fremmedstoffer fra kunstgræsbaner (SBR/sort bildæk granulat – Zink, PaHére)*
- *Bortskaffelse af brugte kunstgræsbaner*

# Reasons for the proposal

- Widespread evidence of exposure/ ingestion of microplastics
- Evidence of adverse ecotoxicological effects and trophic transfer
- Considered as 'non-threshold'. Risk management to minimise releases (to minimise the likelihood of adverse effects)
- Estimated 400k tonnes of emissions avoided over 20 years.

## Why infill

- 2016
  - Scandinavia identify infill migration as potential source of marine pollution
- 2017
  - EC commission report into sources of microplastics
  - ECHA launches consultation process.
  - ESTO completes on-line questionnaire and supplies supporting information
- 2018
  - Dutch RIVM published an environmental impact study on rubber infill.
  - ESTO publishes guidelines and good practice to minimise infill migration.
  - EU publishes its Plastics strategy. Commission to request ECHA to develop a restriction proposal for microplastics that are 'intentionally added to consumer and professional products'





# EC report- sources of microplastic

2017 Investitive report prepared for  
the European Commission



## 3.6 Artificial Turf

Polymeric infill from artificial sports turf can be inadvertently removed by players (when attached to their clothing or footwear), and also through maintenance activities such as snow clearance in some countries. It may then enter drains, soil, or surface water, or be removed as part of waste collection.

The potential for the polymeric infill from artificial sports turf to contribute to the problem of marine microplastics has only been relatively recently identified. Best practice measures can be taken to reduce the loss of infill from individual pitches, and alternative infill materials are available. However, at present there is a lack of financial, regulatory, or reputational incentives for pitch operators to implement best practice measures, or switch to alternative infill material.

The problem drivers in respect of artificial sports pitches can broadly be divided into those that relate to inadequate capture of infill, and those that relate to the use of alternatives.

As an emerging issue there is a lack of awareness to date amongst pitch operators that loss of infill can contribute to marine microplastics. As SBR in particular is relatively cheap compared to other costs associated with the construction and maintenance of artificial sports pitches, there is an insufficient financial case for preventing loss, and switching to natural infill alternatives such as cork, would be costly. Regulators, pitch users and the public, are also unaware of the issue, and thus there is no regulatory or reputational driver for pitches to prevent loss of polymeric infill, or use alternatives. Finally, in the absence of 'design, build, and maintain' contracts installers do not have an incentive to minimise lifetime costs through avoiding purchase of 'top-up' infill to replace that which is lost (albeit the infill is relatively cheap).

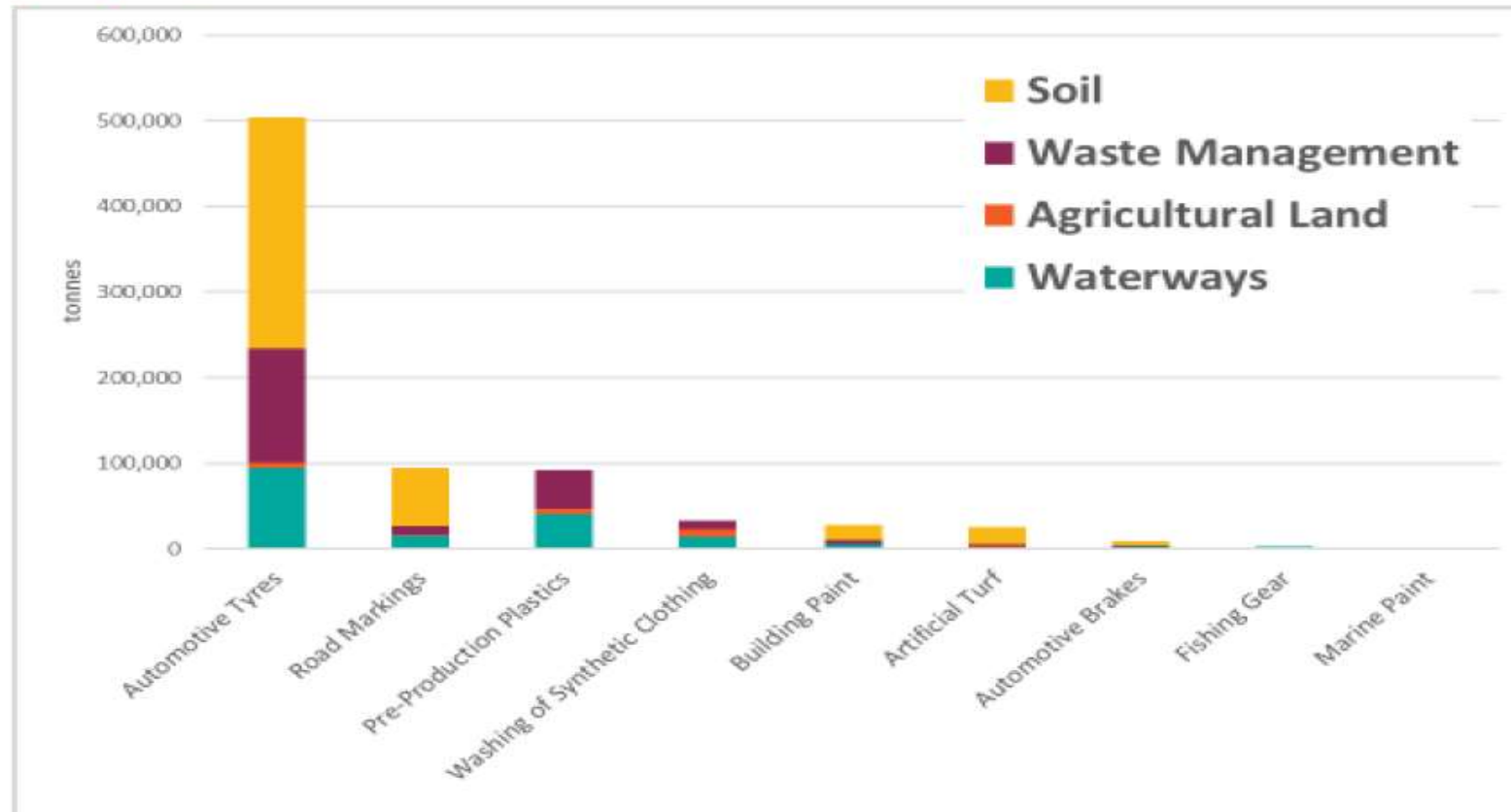
Problem drivers relating to artificial turf can be summarised as follows:

- Insufficient financial, regulatory or reputational incentive for pitch operators to implement best practice measures in specifying the facility and managing its use
- Insufficient financial, regulatory or reputational incentive for pitch operators to use alternative infill material
- Insufficient financial incentive upon installers of artificial sports pitches to design in such a way as to minimise likelihood of infill loss



# EC report- sources of microplastic

**Figure 1 - Source Generation and Fate of Microplastics from Wear and Tear in the EU (midpoint)**



Source: Eunomia modelling



# EC report- sources of microplastic

Country	Rubber in-fill granulate from artificial football pitches discharged into the environment per year
Denmark	380-640 tonnes
Norway	1,500 tonnes
Sweden	1,100-1,900 tonnes
The Netherlands	500 tonnes

<http://www.kimointernational.org/feature/microplastic-pollution-from-artificial-grass-a-field-guide/>



# Scope of the proposal

ECHA has published a proposal for a restriction on the use of microplastics\* which can have major consequences for the entire industry.

- ***\*Microplastics** are very small particles of plastic material – or rubber – (between 1 nm and 5mm), whose presence in the environment is harmful. Microplastics releases from products can be unintentionally formed through the wear or intentionally added for a specific purpose.*

*The Plastic Strategy published by the European Commission called a reduction on microplastics' pollution to protect the oceans, for intentionally added microplastics, Commission called for an entry on Annex XVII Restriction to reduce the risk and also send a on the strong commission intentions towards microplastics' pollution reduction*

The ECHA have confirmed that **ALL forms of rubber and plastic infill** used in synthetic turf surfaces (sport or landscaping applications) would fall within the scope of the proposed ban. This would force the industry and end-users to move to non-infill systems or systems with natural/ biodegrading infills only. If this will become reality, this is expected to have a major impact on our industry for a number of reasons, related to reputation, product availability, certification, technical performance, etc.

In the draft restriction ECHA have acknowledged that there may be a need to exclude infill if a **convincing social economic argument** is made. **It is primarily up to industry to make this case.** ECHA have indicated they wish to receive this argument within four months - not the full six month consultation period (the public consultation was opened on March 20).

Who is reacting on behalf of industry to make convincing social economic argument:

- ESTC
- FIFA
- # of local FA's

# ECHA's definition of microplastic

After considering the advantages and disadvantages of the various definitions for microplastic, ECHA proposes the following definition:

**Microplastic means a material consisting of solid polymer – containing particles, to which additives or other substances may have been added, and where >1% w/w of particles have (i) all dimensions  $1\text{nm} < x < 5\text{mm}$  or (ii), for fibers, a length of  $3\text{nm} < x < 15\text{mm}$  and length to diameter ratio  $> 3$ .**

**Polymers that occur in nature that have not been chemically modified (other than by hydrolysis) are excluded, as are excluded polymers that are (bio) degradable.**

This means per definition that:

SBR, TPE, EPDM, PE, PP are microplastic

**Cork, Cocos, Sand, BioFill are not microplastics!**



SALTEX *by*  
**UNISPORT** ™

# Saltex Legacy™



*Kunstgræs*  
**Saltex Legacy™**

*Infill granulat*  
**Saltex BioFill™**

*Bagside*  
**PU PowerBacking**

*Shock pad*  
**Saltex PowerPlay**



**Saltex Legacy™**  
Godkendt af FIFA

**UNISPORT** 



# Kunstgræs Saltex Legacy™

- ✓ Ingen bindetråd
- ✓ PU bagside
- ✓ Unik struktur
- ✓ Baseret på afprøvede fiber  
(to-delt)






# Saltex BioFill™

Granulatet er industrielt fremstillet og certificeret som 100% biologisk nedbrydeligt og organisk, hvilket ikke skader natur, vand, dyr eller os selv.



UNISPORT 



# Saltex BioFill™

- ✓ Certificeret biobaseret  
ASTM D 6866:2008 (Edition 2011-10)
- ✓ Certificeret genanvendeligt  
EN13432 (2000), ASTM D 6400-04 & ISO 17088 (2008)
- ✓ Certificeret nedebrydeligt  
EN13432 (2000), ASTM D 6400-04 & ISO 17088 (2008)
- ✓ Lever op til kravene fra REACH
- ✓ Ingen støv (sammenlignet med eksisterende infill)
- ✓ Ingen lugt
- ✓ Baseret på Non-GMO fornyeligt råmateriale
- ✓ Kulstof neutral
- ✓ Fødevarer godkendt af Triskelion (TNO)
- ✓ Mulighed for genanvendelse



# Saltex ATM Vedligeholdelsesmaskine

- ✓ Spar penge (Automatiser vedligeholdelse og flyt ressurser)
- ✓ Gennemfører altid korrekt vedligeholdelse (programmeret til korrekt vedligeholdelse)
- ✓ Sikkerhessapplikationer for maksimal sikkerhed (GPS, sensor og lav hastighed)
- ✓ Let at bruge (touch-skærm og app)
- ✓ Teknisk støtte (Kundesupport)
- ✓ Miljøvenlig



GPS MAPPING



LADES I EGEN  
STASJON



SENSOR FOR  
SIKKERHET



A low-angle shot of the lower legs and feet of several soccer players standing on a green artificial turf field. The players are wearing various colored shorts (orange, black, green, blue) and red socks. They are wearing different styles of soccer cleats. A white soccer ball with orange and blue accents is in the foreground on the right. The background is slightly blurred, showing a fence and trees.

# Spørgsmål?

**Tak for din opmærksomhed!**