views on the

Proposed Annex XV REACH Restriction – rubber granules used in synthetic turf infill

Meeting with DG ENV and DG GROW
15/04/2021

ETRMA, EuRIC and ESTC represent whole value chain of ELT delivered rubber granules used as infill material in synthetic turf

ESTC	The European Synthetic Turf Council, a non-profit trade association representing European, Middle East and African based companies manufacturing synthetic turf surfaces and the components used to form the surfaces and also companies that install and maintain synthetic turf surfaces. Members also include sports federations that use synthetic turf surfaces. At present ESTC has over 80 members
ETRMA	The European Tyre & Rubber Manufacturers Association (ETRMA) and its members count around 4.300 companies in the EU employing directly 360.000 people. ETRMA tyre corporate companies represent globally 59 % of world sales and 7 out of 10 world leaders are our Member. Tyre industry has a strong manufacturing presence in the EU and candidate countries with 93 tyre-producing plants and 17 R&D centres. At the end-of-life, tyres are collected and their treatment (through material recycling and energy recovery) is organized, through the ELT Management Companies across EU countries, the majority of these operating under EPR at the initiative of ETRMA members
EuRIC	The European Recycling Industries Confederation (EuRIC) through its various branches covers the vast majority of waste streams (metals, paper, plastics, WEEE, ELVs, tyres, textiles, glass and beyond), brings together National Recycling / Resource Management Federations and Companies in lieu from more than 23 European countries active locally and globally. Its members count more than 5,500 companies including large companies and SMEs, involved in the recycling and trade of various resource streams; generating 300,000 local jobs and million tons of waste recycled per year.

Synthetic turf sports fields benefit to society

- Provide **safe, durable** playing areas
- Can sustain **high levels of use** 7 days a week, 52 weeks a year - 1 synthetic turf field can easily accommodate the use of 4 – 6 natural turf fields
- Ability to sustain high use allows large parts of **society** to participate in sport every week, providing communities with the **full benefits** of playing sport, including health, social inclusion
- Can be used in **all weather conditions**
- Are **easier and cheaper to maintain** than natural grass fields

More than 30,000 synthetic turf full size fields across Europe

30 people / hour for 1,950 hours per year

Society benefits from 1.75 billion playing hours of fun and exercise per year

- We agree that microplastic pollution needs to be minimised, wherever possible
- We agree polymeric infills meet the definition of a microplastic
- But it only becomes a pollutant if it leaves the sports field, until that point, it is key component of the sports surface
- Prevent infill from leaving the field and there is no pollution

So how do you ensure infill does not leave the sports field?

PD CEN/TR 17519:2020

TECHNICAL REPORT
RAPPORT TECHNIQUE
TECHNISCHER BERICHT

CEN/TR 17519

July 2020

ICS 97.150; 97.220.10

English Version

Surfaces for sports areas - Synthetic turf sports facilities - Guidance on how to minimize infill dispersion into the environment

Sols sportifs - Installations sportives en gazon synthétique - Recommandations pour limiter la dispersion des matériaux de remplissage dans l'environnement

Sportböden - Kunstrasenflächen - Leitfaden zur Minimierung des Austrags von Verfüllgut in die Umgebung

This Technical Report was approved by CEN on 12 July 2020. It has been drawn up by the Technical Committee CEN/TC 217.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

© 2020 CEN All rights of exploitation in any form and by any means reserved worldwide for CEN national Members.

Ref. No. CEN/TR 17519:2020 E

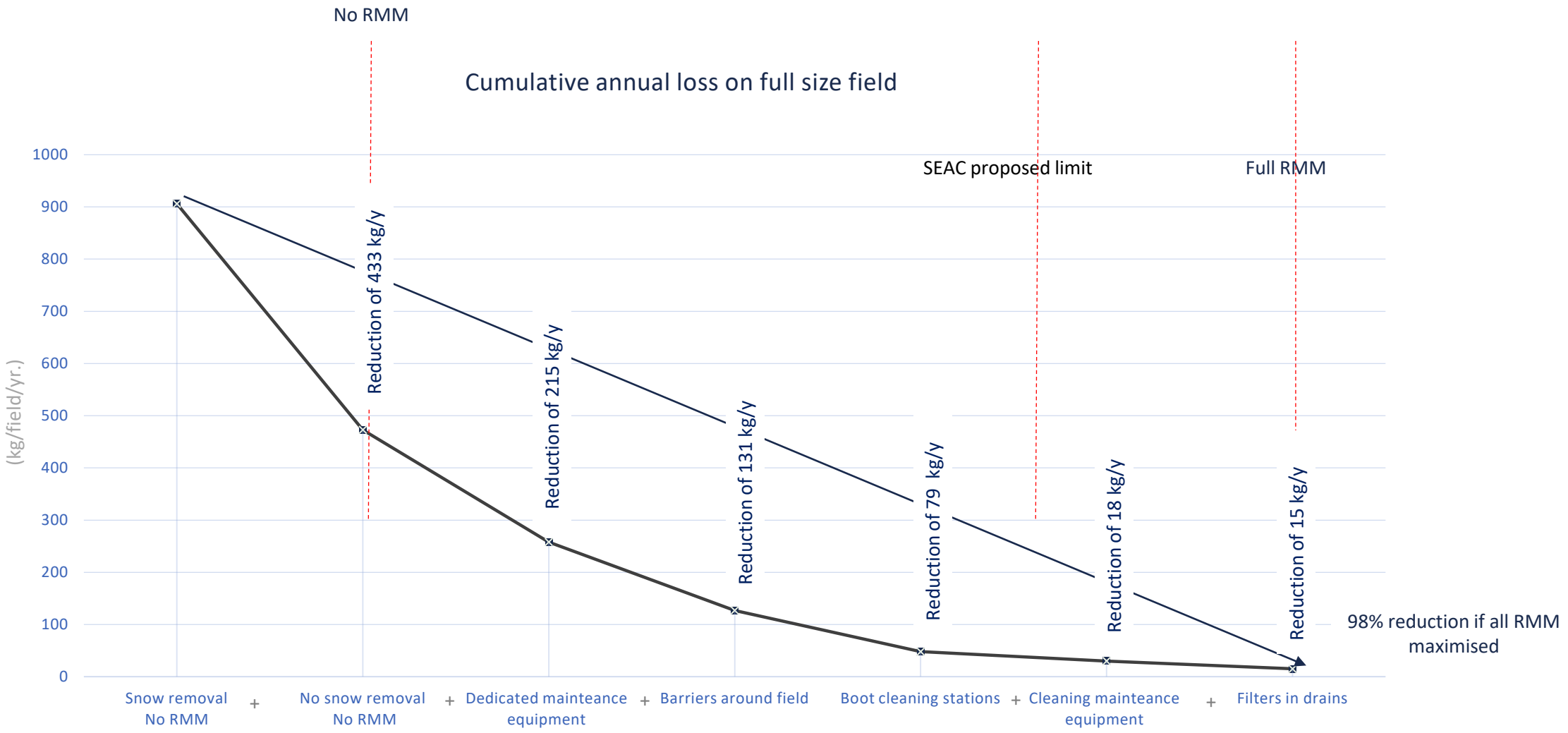
Committee member copy. Do not reproduce

- Best practice report describing how to prevent infill from migrating from a sports field
- Prepared by the European Standards Organisation
- Published July 2020, available in all Member States
- Report's recommendations already adopted by:
  - FIFA
  - UEFA
  - World Rugby
  - Gaelic Athletics Association
  - Rugby Football League
  - International Hockey Federation
  - National sports federations

Do Risk Management Measures work ?

Data from independent report *Determining the effectiveness of Risk Management Measures to minimize infill migration from synthetic turf sports fields*, EcoLoop Aug. 2020.
Available at https://www.estc.info/wp-content/uploads/2020/09/Ecoloop-Report-Effectiveness-RMMs.pdf

Worst case situations	**Fit snow storage areas**		**Fit barriers around perimeter of field**		**Fit filters to surface drains**		**Install boot cleaning stations and decontamination grates at entrances**		**Use dedicated maintenance equipment stored at field**		**Clean tractors, etc before leaving field**	
Snow clearance No RMM												
Loss of 906 kg/field/year Loss of 473 kg/field/year	Potential migration reduced by 433 kg/yr.	Total reduction = 48%	Potential migration reduced by 131 kg/yr.	Total reduction = 62%	Potential migration reduced by 15 kg/yr.	Total reduction = 63%	Potential migration reduced by 79 kg/yr.	Total reduction = 73%	Potential migration reduced by 215 kg/yr.	Total reduction = 96%	Potential migration reduced by 18 kg/yr.	Total reduction = 98%
No RMM No Snow clearance												


No RMM
Cumulative annual loss on full size field
SEAC proposed limit
Full RMM
1000
900
800
700
600
500
400
300
200
100
0
(kg/field/yr.)
Reduction of 433 kg/y
Reduction of 215 kg/y
Reduction of 131 kg/y
Reduction of 79 kg/y
Reduction of 18 kg/y
Reduction of 15 kg/y
98% reduction if all RMM maximised
Snow removal No RMM
+
No snow removal No RMM
+
Dedicated mainteance equipment
+
Barriers around field
Boot cleaning stations
+
Cleaning mainteance equipment
+
Filters in drains
RMM incorporated into field design/operation

SEAC reiterates that a choice for one of the options can only be taken based on policy priorities

SEAC proposes two options for polymeric infill material

- Total ban in six year's time, irrespective of social and economic costs

OR

- Mandatory use of risk management measures, with immediate effect on new fields, and all existing fields within 3 years

RAC opinion proposes a ban after 6 years

What about alternatives?

Organic infills

- More costly and requires higher maintenance
- Some need to be kept moist - increased cost
- Infill can be displaced/loss of infill during heavy rain
- Limited availability (97% of current cork production already used – not possible to increase in short or medium term
- Rapid (bio)degradation
- Use of chemical treatments – pesticides
- Wind and water migration causing environmental contamination

Non-filled and sand dressed turf

- Increased risk of player injuries – carpet burns
- Do not satisfy FIFA, World Rugby, etc. regulations and norms
- Inconclusive player feedback – some hostile
- Increased cost
- Increased virgin material resource

Natural grass

- Limited usage capacity - less than 6 h/week
- 1 synthetic turf field = 6 natural grass fields
- Not suited to many climates
- High maintenance

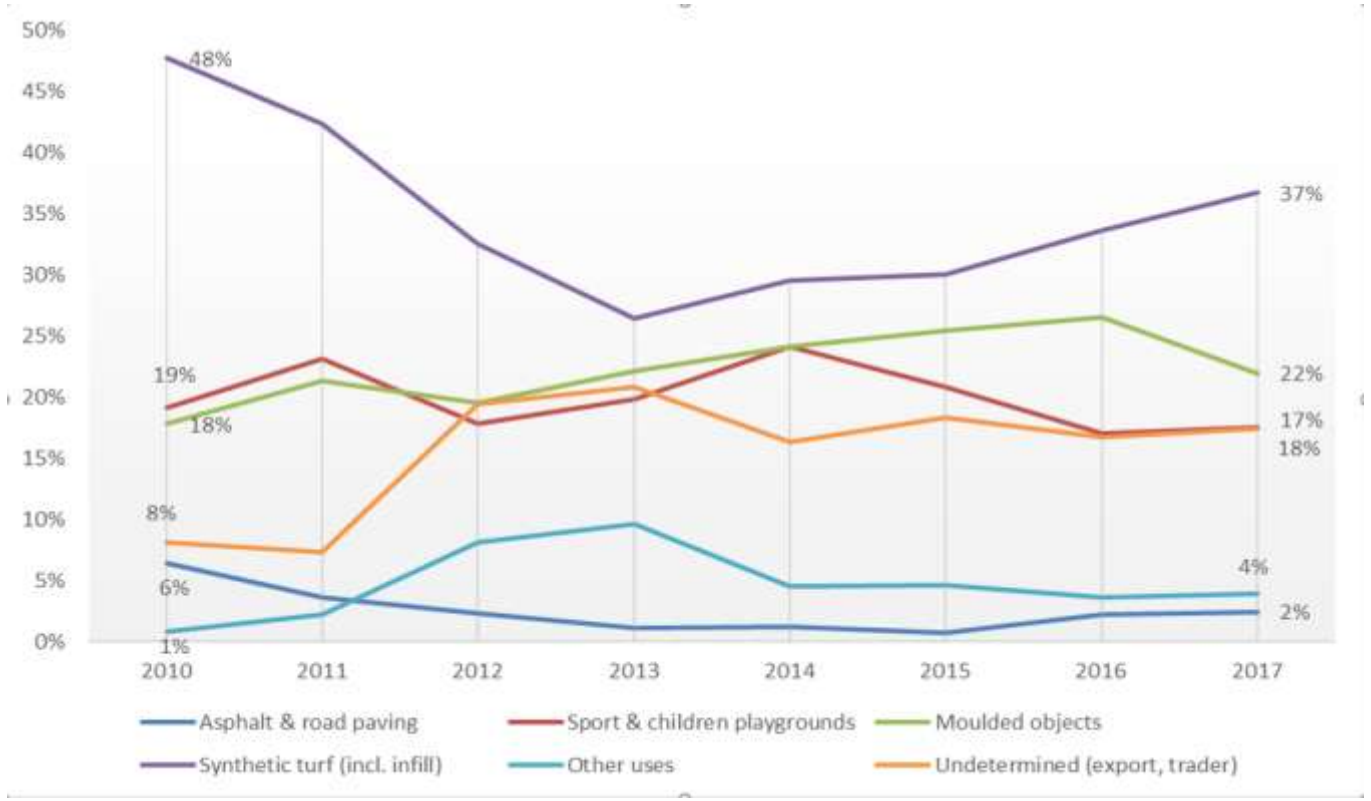
A ban will have major consequences on everyday life of sport communities

- **Reduced availability of fields** with an impact on social participation and public health
- The **cost** of synthetic turf fields **will significantly increase**
- Increased risk of **players being injured**
- Increased **operating costs** with alternate infills
- **Lack of suitable surfaces** for some climates / applications
- **Premature replacement** of existing fields if materials for on-going maintenance not available

The financial implications for fields could reach up to 800 million Euro

- UEFA now estimate over 29,000 full size fields across Europe, could be affected. Plus, a significant number of mini-fields
- Remove & dispose of existing carpet – often not possible to just change infill - meaning full replacement is required
- Installation of a shockpad (many existing field are designed to use infills that have elastic properties)
- 60,000 Euro per field to upgrade = more than 800 million Euro for all 13,600 affected full-size fields
- 200,000 Euro per field if resurfacing is required
- If relevant for 60%, this equals to more than 1.6 billion Euro for affected full-size fields

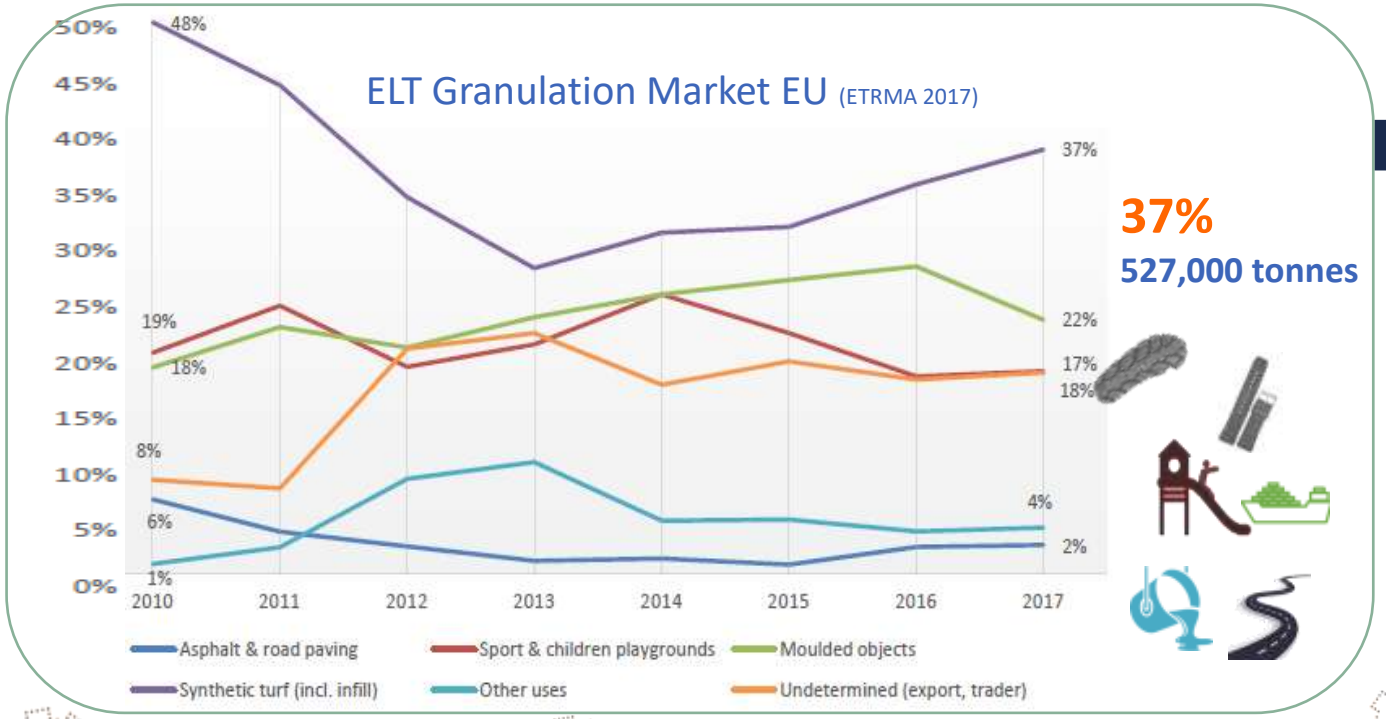
Use End-Of-Life tyres granules as infill material is essential to meet the circular economy goals



Evolution and Share of End-Of-Life derived rubber in EU from the overall 1.5 million tonnes of rubber process from Tyres, ETRMA, 2018.

To date there are no material recycling alternatives to compensate for the infill market loss
As a result, 527,000 tonnes of ELTs would mainly be processed for energy recovery.

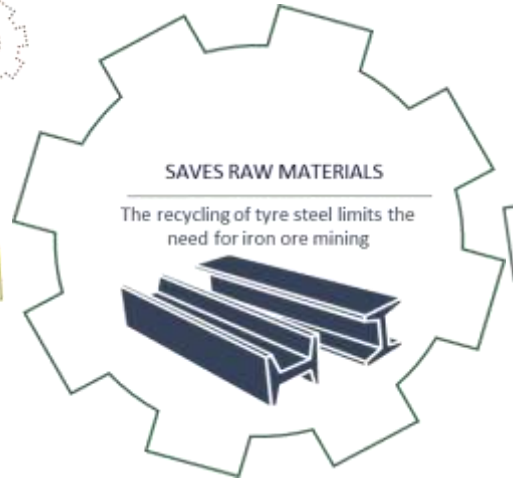
Benefits to circular economy of using ELT-derived rubber



37%

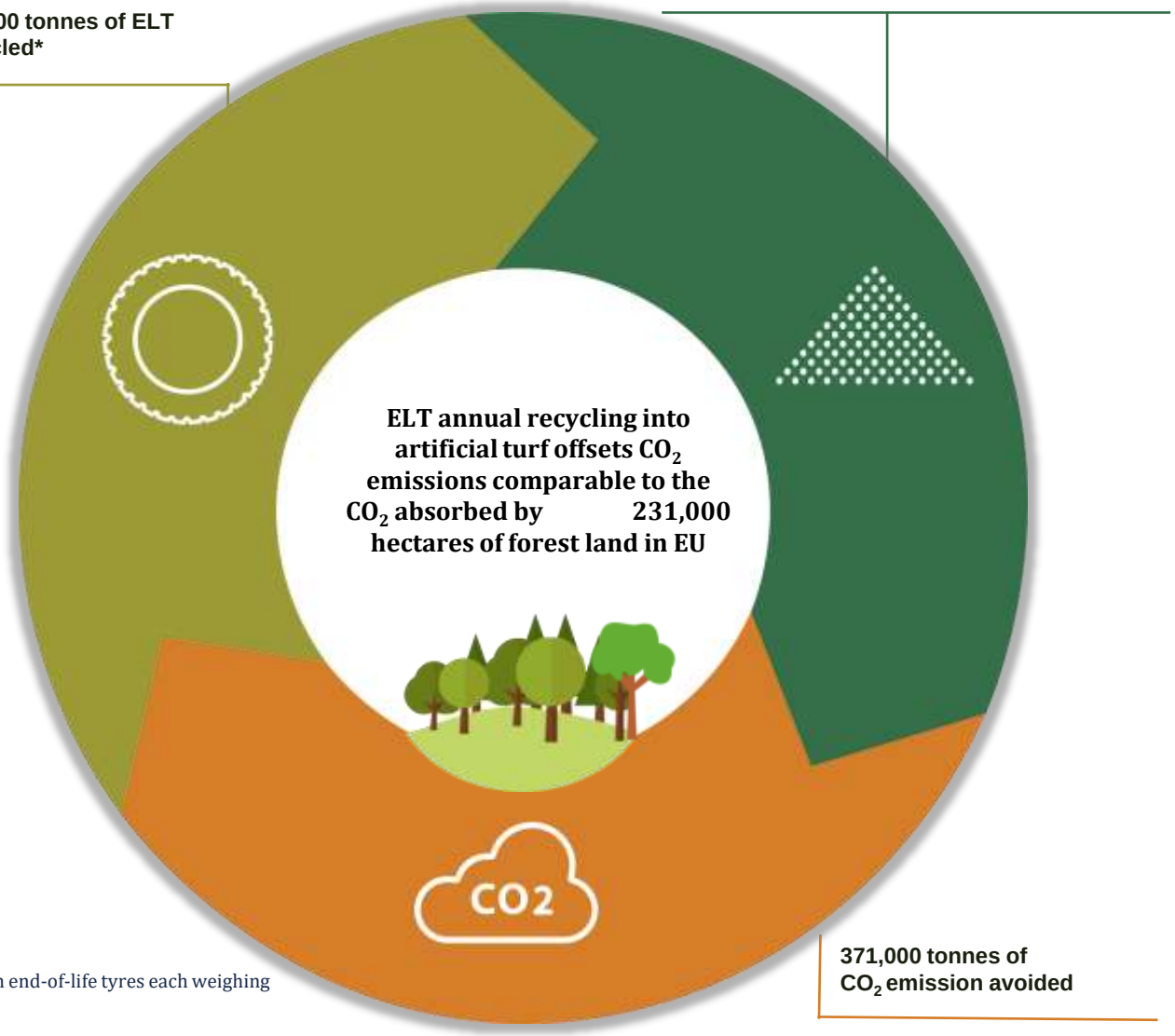
527,000 tonnes

???



Synthetic turf and ELT environmental benefits

Approx. 2.6 million tonnes of ELT infill are currently installed in artificial turf pitches and each year:



* Corresponding to approx. 50 million end-of-life tyres each weighing approx. 10 kg

The ban will affect ELT circularity, the environment and disturb local jobs and economies

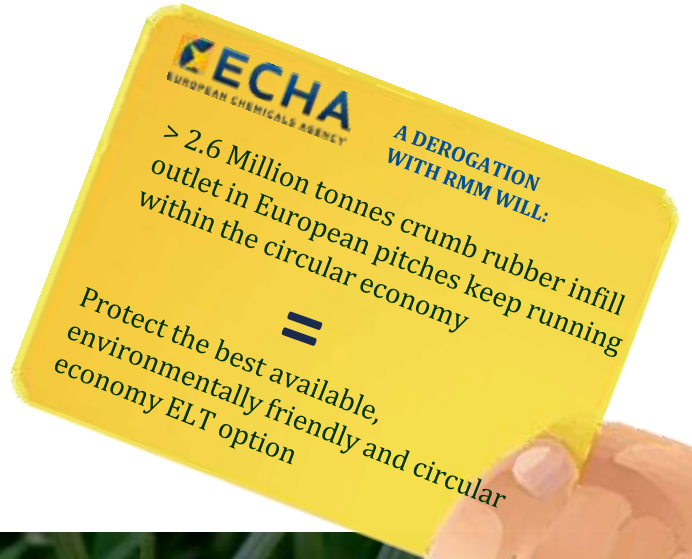
Loss end-of-market ELT infill: €820 million

Job losses: €40 million

CO_2 emissions with an additional societal cost

RMM
Microplastic releases

Environmental benefits recyling



ESTC, ETRMA and EURIC call for

A derogation from a ban on the sale of polymeric infills to any field on which CEN TR 17519 risk management measures are implemented.

Legal responsibility for ensuring compliance should be placed on the organisation purchasing the infill for use on the field




Specialist installation contractor

Specialist maintenance contractor

RMM present on field
Sale allowed

RMM not present
Sale banned

Conclusions and takeaways

1. Microplastics release from artificial turf pitches to the environment must be reduced and it can be **efficiently avoided**, in both terms of technical implementation and price.
2. The technical report **CEN/TR 17519** includes the risk management measures necessary to avoid microplastic releases from artificial turf pitches.
3. There is no alternative for artificial infill outside the definition of microplastics able to fulfil the same performance requirements, and no alternative can achieve the **environmental benefits** of end-of-life tyre recycling.
4. A derogation for polymeric infill with the condition that **risk management measures** are in place is the best option from the environmental and socio-economic point of view.

Example of traceability in the recycling value chain

CERUB®- The first international sustainability system for material recovery

The tyre industry is the first industry to establish an international sustainability label for the joint pursuit of the *circular economy*.

The purpose of CERUB is to accelerate the reuse of the tyre materials and ensure that the entire recycling chain lives up to the *highest standards, in terms of environment and health*.

A CERUB® labelled material is a guarantee for a responsible production chain and that it has a transparent material flow.

Compliance and approval are checked by the third-party certification, thus ensuring *traceability* and documentation at all levels.

The sustainability label CERUB® is a guarantee that the material **meets all regulatory requirements** regarding the environment and *safety for the intended end-use*.

CERUB® End-use specific certification

Company & country

Company's operations nationally

Manufacturing process

Stationary / mobile processing

Fraction produced

Powder / granulate / shred / entire tyres

End-use application

Energy / civil engineering / sport turfs /moulded products / other applications & products

Guarantee for responsible processes, *traceabile, transparent material flows* and production chain
Guarantee that the material is safe to use for the intended end-use application!

CERUB completes a fully traceable life cycle

Six certification principles

The CERUB® label – The organisation using the label guarantees that the End-of-life tyre derived rubber is produced according to the principles:

+ A set of minimum criteria to ensure that the materials are produced and delivered to markets according to the principles.

3rd party verification

International auditor network - Verification partner DNV GL Business Assurance

One door service – Centralised international audit manager, one contact for all

Consistency of Audits - Auditor introduction process to new Auditors; Consistency evaluation process for Audit performances; Assessment criteria & documentation requirements

Labelling system with company license code for traceability. Certified materials and products are published in www.cerub.org

THANK YOU!

More information and contact

www.cerub.org

info@cerub.org

Let's talk!

Anders Färnlöf, Chairman of the Board (anders.farnlof@sdab.se)

Pirjo Rinnepelto, General manager (Pirjo.Rinnepelto@apilagroup.fi)

Thanks for your attention / Background documents

DTI Løkkegaard, H. (2019). Mass balance of rubber granulate lost from artificial turf fields, focusing on discharge to the aquatic environment. Retrieved from https://www.genan.eu/wp-content/uploads/2020/02/Teknologisk-Institut_Mass-balance-of-rubber-granulate-lost-from-artificial-turf-fields_May-2019_v1.pdf

ECHA (2019). ANNEX XV RESTRICTION REPORT –Restriction proposal for intentionally added microplastics in the EU. European Chemicals Agency. Retrieved from: https://echa.europa.eu/documents/10162/05bd96e3-b969-0a7c-c6d0-441182893720

EUNOMIA (2018). Investigating Options for Reducing Releases in the Aquatic Environment of Microplastics Emitted by Products. Retrieved from: https://www.eunomia.co.uk/reports-tools/investigating-options-for-reducing-releases-in-the-aquatic-environment-of-microplastics-emitted-by-products/

EuRIC (2019). Implementation of Best Practices in synthetic turfs to avoid the release of microplastics from rubber granulate into the environment. Retrieved from: https://www.euric-aisbl.eu/position-papers/item/350-implementation-of-best-practices-in-synthetic-turfs-to-avoid-the-release-of-microplastics-from-rubber-granulate-into-the-environment

European Synthetic Turf Organisation (2018). Minimising the risk of micro-plastic pollution. ESTO Guidance Document. Retrieved from: https://www.estc.info/wp-content/uploads/2018/05/ESTO-Minimising-Micro-Plastic- Pollution-Report.pdf

Force Technology with contribution by ifeu – Institut für Energie- und Umweltforschung Heidelberg GmbH (2020) Life cycle assessment of waste tyre treatments: Material recycling vs. coincineration in cement kilns. For GENAN Holding A/S, May, 2020. Retrieved from: https://www.euric-aisbl.eu/images/PDF/LCA_tyre_recycling.pdf

CEN/TR 17519 Surfaces for sports areas - Synthetic turf sports facilities - Guidance on how to minimize infill dispersion into the environment. Retrieved from: https://www.estc.info/wp-content/uploads/2020/03/FprCENTR-17519-Public.pdf

Regnell, F. (2019). Dispersal of microplastic from a modern artificial turf pitch with preventive measures – Case study Bergaviks IP, Kalmar. Ecoloop. Retrieved from: https://www.ragnsellstyrerecycling.com/globalassets/tyre-company/dokument/rapport---mikroplastspridning-fran-en-modernt-utformad-konstgrasplan-med-skyddsatgarder.pdf

ECHA (2019) Annex XV dossier proposing restrictions on Polycyclic-aromatic hydrocarbons (PAH). Retrieved from: https://echa.europa.eu/documents/10162/07814dea-edf3-eb45-37c3-42d5b6fee69a

SEAC draft opinion (2020). Retrieved from: https://echa.europa.eu/documents/10162/5a730193-cb17-2972-b595-93084c4f39c8

TNO Report (2020) Determining loss of infill from synthetic turf, Report R10721; https://www.estc.info

Magnusson & Mácsik, (2020) Determining the effectiveness of Risk Management Measures to minimize infill migration from synthetic turf sports fields: https://www.estc.info