

Transforming artificial sports pitches towards zero pollution

EXPERIENCE WITH SUSTAINABLE ARTIFICIAL TURFS

FROM A POLICY PERSPECTIVE

INTRODUCTION

Thomas Jacob

Office of the Mayor / Senatskanzlei
thomas.jacob@sk.hamburg.de

Torge Hauschild

Department for Sports Facilities Construction /
Bezirklicher Sportstättenbau
torge.hauschild@hamburg-mitte.hamburg.de

The Department for Sports Facilities Construction is organized in the central district of Hamburg, the „Bezirksamt Hamburg-Mitte“. It has its main responsibility in planning, building and maintaining the public outdoor sports infrastructure. A team of 15 staff members is supervising 150 sport facilities in the 7 districts of Hamburg with about 215 pitches and a total area of 360 ha.



Picture: Bezirklicher Sportstättenbau, Hamburg

GROWING CITIES, GOALS, STRATEGY

Like in many other urban communities or “growing cities” like Hamburg we basically only maintain existing pitches and barely build new ones.

Existing pitches have to be reconstructed/modernized, because there will be a pressing need in the near future.

So our main goal is to generate pitches that will

- be reliably available for the whole year
- tolerate an extension of sport-activities (and by the way some other activities as well)

Looking at this goal, there is – from our point of view

- **no alternative right now but using artificial turf.**



Picture: Bezirklicher Sportstättenbau, Hamburg

STANDARD

Hamburg has some experience in building and operating synthetic turf pitches without synthetic infill.

We have defined a standard for artificial turfs that have a dense structure of textured filaments and that are filled with sand.

Our credo is to orientate our choice towards a standard that respects (equal) factors such as functionality, economy, durability, maintenance and sustainability.

Naturally, there are other opinions that regard the functionality by far at the top. But from our point of view that only seems to be correct when you are planning for semi-professional or professional sports.



Pictures: Bezirklicher Sportstättenbau, Hamburg

STANDARD

From 2014 to 2018 we started a pilot regarding cork-granulate as infill to get a first look on natural infills.

With this experience we favored cork-infill in cases where we needed an infill because of functional matters (like American football, rugby etc.).

Since then suppliers and products are available in a wider range – no problems there - and right now we are processing a more recycling-focused application.



Pictures: Bezirklicher Sportstättenbau, Hamburg

DEVELOPMENT

Development regarding pitches, 2013 bis 2021

Pitch / Surface or plating	2013	2015	2017	2019	2021*
Artificial turf (amount/ share in %)	37 / 16,97 %	51 / 23,39 %	77 / 34,84 %	93 / 42,66 %	110 / 51,64 %
Slag or „Tenne“ (amount/ share in %)	107 / 49,08 %	95 / 43,58 %	76 / 34,39 %	62 / 28,44 %	46 / 21,60 %
Natural turf (amount/ share in %)	74 / 33,94 %	72 / 33,03 %	68 / 30,77 %	63 / 28,90 %	57 / 26,76 %
Total	218	218	221	218	213

*forecast
31.12.2021

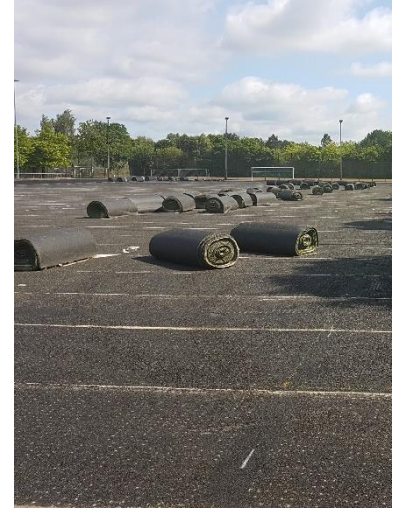
RECYCLING

Regarding the aforementioned development it is some kind of logical consequence, that replacing existing and worn artificial turfs with new artificial turfs will take an expanded role in the near future.

Currently we have about 2 to 3 pitches that have to be renewed every year.

Within the next years this number will rapidly increase.

So, the topics of recycling the worn turf and optimizing the new turfs towards future recycling are very important to us.



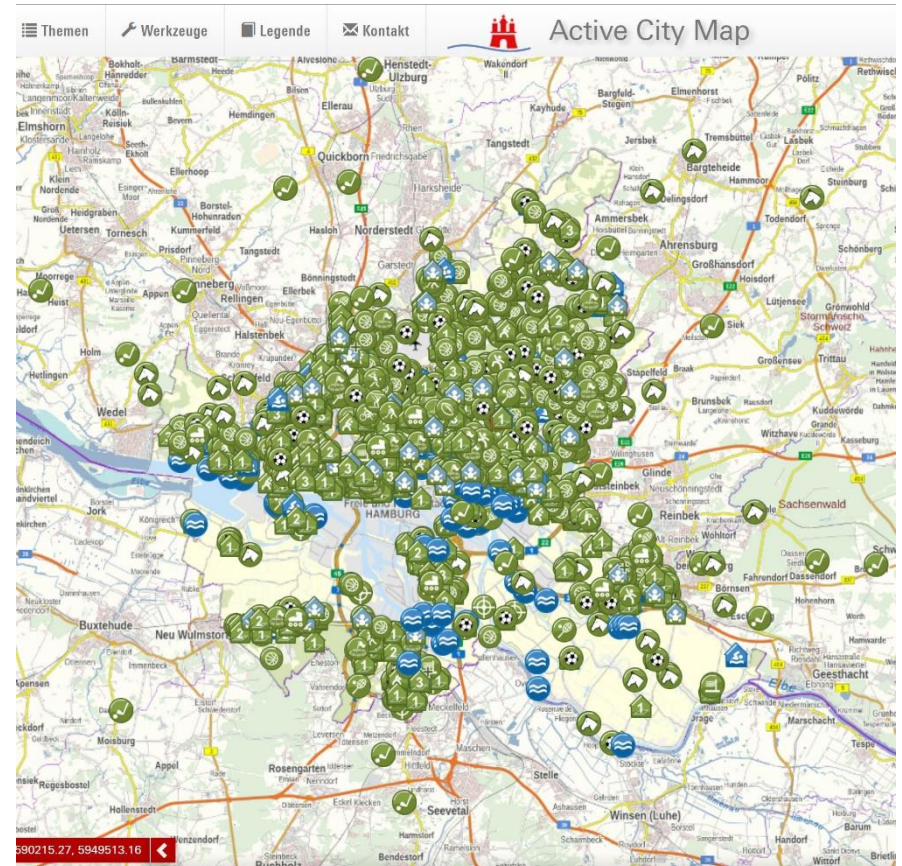
Pictures: Bezirklicher Sportstättenbau, Hamburg

POSSIBILITY

About 95% of the public sportinfrastruturte is owned by the state or districts.

That generates responsibility on one hand, but also possibilities on the other hand.

So the administration has the opportunity and responsibility to develop a strategy that will focus on aspects like sustainability, recycling and others.



Picture: „Active City Map“
Link: <https://geoportal-hamburg.de/activecitymaps>

RESPONSIBILITY

As already mentioned, the necessity of constructing and increasing number of pitches with artificial turf brings along the responsibility to take an active role in developing more sustainable systems – or at least to set an impulse to the market.

Because of this – and because we are a beneficiary of a national funding program – we organized an “Innovational Conference for Urban Sport Facility Construction” (“Innovationskonferenz Urbaner Sportstättenbau 2020”) for these topics.

The conference took place in Hamburg in September 2020 (participants: engineers, planners, constructors, industry (research and development), science, evaluation, administration).

Right now we are working on the first projects that will transfer the results of the conference to the construction site.



Pictures: Hochschule Osnabrück (ILOS, Fotos),
Bezirklicher Sportstättenbau, Hamburg

CONCLUSION

From our point of view, we would say that we're already heading in the right direction...

...but we need partnerships and networking, when we want to establish a more sustainable way of thinking, planning, constructing and maintaining of artificial turfs.

The SURFACE-Program and network would be an excellent opportunity to take the next step.



Picture: Bezirklicher Sportstättenbau, Hamburg



Sportanlage Ehestorfer Weg
Picture: Bezirklicher Sportstättenbau, Hamburg

**THANK YOU VERY MUCH
FOR YOUR ATTENTION!**

Bezirksamt Hamburg – Mitte
Fachamt Bezirklicher Sportstättenbau

