

## Turf Wars: Real Grass or Artificial Turf Means Big Business Either Way

By Brendan Coffey

*This is the fourth story in Sportico's Turf Wars series, examining the business decisions behind choosing natural grass or artificial turf for an NFL stadium.*

Convincing NFL owners to go forward with new grass-field technology can be a tough sell. Just ask Mark Trübenbacher, CEO and co-owner of Netherlands-based PlayGreen, a maker of grow lights and other grass tech. “The NFL, whether because the spread [of environments] is so big, because the business cases are so different or ownership are so different, it’s kind of ‘prove it’ to one [team] after the other,” Trübenbacher said on a video call from Yellowstone National Park. He was there to hike into the wilderness to spot grizzly bears, a pastime that evidently counts as a respite from pitching would-be NFL clients.

The executive knows what it takes to “prove it.” In 2019, he flew to Denver personally to beg the Broncos to buy one small light rig that he knew could help the team solve a problematic area of Empower Field at Mile High, which features a grass field.

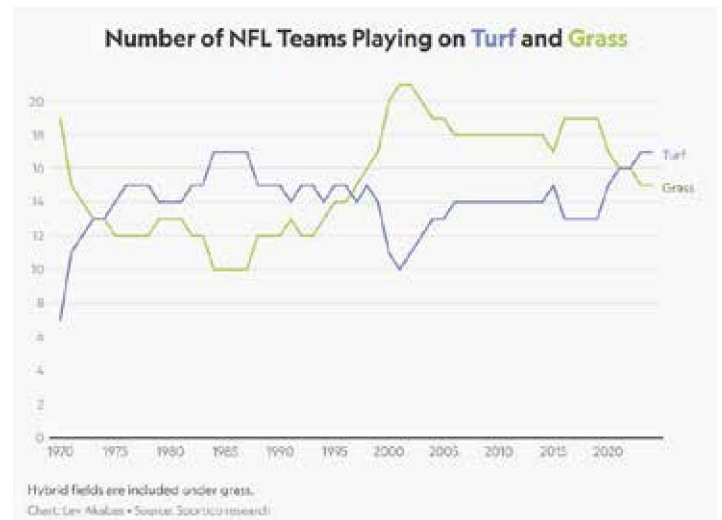
“Just get it,” Trübenbacher recalls telling the team. “Just get it and try it on your south end, where they had the biggest problem.”

The pitch succeeded. “Now every year they are buying more and more,” he said, “because they can see they can improve their playing surface with our technology.”

For all the debate around playing surfaces in the NFL, the league has been surprisingly stable in the split between grass and turf. Thirty years ago, 15 of the league’s then-30 teams played on artificial turf. Today, 17 of the 32 clubs play on turf. Yet the corporate battle to supply those surfaces is constantly evolving, as both synthetic turf and natural-grass technology improves and new stadiums with vastly divergent missions are being built.

It makes for a unique sales environment for suppliers. Trübenbacher says the need to cajole NFL owners is different from every other sports league PlayGreen has dealt with. Two decades ago, nearly the whole of English soccer was convinced by Trübenbacher’s company to embrace grass in one fell swoop when owners were considering artificial surfaces as a solution to muddy penalty areas.

The company got its start in the 1990s when a Dutch scientist took it upon himself to explore how to make grass more resilient in soccer’s high-traffic, six-yard box. By 2008, the lighting systems, disease management and data analysis he developed was robust enough for Premier League owners to jump on.



“The NFL is quite reluctant compared to the Premier League,” Trübenbacher said. “We showcased Arsenal, and everybody said, ‘Wow, that’s a significant impact.’ And everybody bought it.”

But the high-touch sales effort in the NFL pays off. In addition to the Broncos, PlayGreen now counts four other NFL teams as clients of one or both of its divisions, ALVA Technology and Stadium Grow Lighting, including the Ravens, Packers and, as of last year, the 49ers.

It’s also a decent-sized business: George Pyne’s Bruin Capital bought a majority of PlayGreen from Trübenbacher’s family earlier this year in a deal valuing the business between \$100 and \$200 million. The investment is a bet that more sports teams will shift to grass and use PlayGreen’s sports-specific tech to grow and maintain it.

While there are plenty of grass and related companies—such as the publicly traded Scotts Miracle-Gro and John Deere—they don’t discuss sports needs because their core markets, residential yard and commercial farming, are so much larger. Similarly, the world of artificial turf is so vast that a number of manufacturers,

including flooring giant Mohawk Industries, make fake grass for residential and commercial environments but not sports.

In fact, you can boil down the major businesses serving top-level sports organizations and facilities to just three: PlayGreen on the grass side, and Sport Group and Tarkett Group on the artificial surface side. Each of the turf makers own multiple brands, but are best known for AstroTurf, a part of Sport Group, and FieldTurf, owned by Tarkett.

“Artificial turf is growing significantly,” Ryan Baker, a partner at KPS Capital Partners, said on a phone call. KPS is a New York-based private equity firm that bought Sport Group in April for an undisclosed sum. “It really is, in our minds, the innovation leader in a lot of its products, particular green products. It offers 100% carbon-neutral turf, biobased artificial turf—polyethylene made from sugarcane or soybeans. ... It's a market leader in its space, and there's a ton of opportunity for commercially to grow it and operationally to improve it.”

KPS' Baker says his firm is excited about the growth in the artificial turf industry as well as the potential for KPS to improve Sport Group's operations. KPS' investment philosophy is to buy companies that manufacture products and boost the business by improving processes and providing better get-to-market strategies. KPS is best known in sports for buying golf's TaylorMade in 2017 for \$380 million and selling it four years later for \$1.7 billion after transforming a money-losing operation into one making some \$200 million in annual profit, according to a Forbes article.

At the very least, manufacturing artificial turf appears to offer a much larger dollar market than grass. Sport Group should generate €828 million, or about \$918 million, in 2024 sales, up 5% from last year according to its former owner. The company doesn't have any current NFL stadiums, but has numerous other pro football and college football stadiums in its portfolio, including the University of Missouri's Faurot Field and Camping World Stadium in Orlando, Fla., site of the 2025 NFL Pro Bowl Games. The business also makes other playing surfaces, such as running tracks and tennis courts, including the ones at the Billie Jean King U.S. Open facilities in Flushing, N.Y.

In artificial grass, pro stadiums including NFL fields “are important because obviously people see them,” Baker said. “But from an actual contribution to [Sport Group's] \$800 million revenue business, the bigger story is going to be in high schools [and] colleges.”

The reasons for choosing AstroTurf tend to be lower maintenance costs, nearly continuous field availability, and the argument that artificial turf may be safer for players than a poorly maintained grass field. “An NFL team is going to spend \$2 to \$3 million a year maintaining a perfect grass field, but most fields aren't [within] the perfect NFL stadium,” Baker said.

Even then, the executive isn't necessarily ceding the NFL or college to his grass competitors: AstroTurf doesn't need water, while a grass field can require thousands of gallons of water a day, he says. Stadiums in water-stressed regions may find the environmentally responsible decision is to use artificial turf.

Sport Group's main competitor, Tarkett, declined to comment for this article. The company is publicly traded in France and discloses it made €1.03 billion from sports last year, or \$1.13 billion. That's up sharply from the prior year's €870.3 million, which was driven by North American demand. Over the long term Tarkett's sports-specific sales have tripled the past 10 years. Its FieldTurf arm lists seven NFL stadiums as installations: MetLife, Ford Field, Gillette, Mercedes-Benz, Lumen Field, Paycor and Bank of America Stadium.

Despite much larger competitors who have their own product advantages to pitch teams, PlayGreen's Trübenbacher believes grass is ascendant for top-level leagues like the NFL. “We see a market for artificial turf, but it is not professional sports,” the German-born CEO said. “You're putting your main asset out there on the field, and if it gets injured, you have that main asset on the bench for a couple of weeks.”

How big is the pro sports market PlayGreen competes in? Trübenbacher says there are probably 2,500 facilities worldwide including U.S. college stadiums. PlayGreen works with about 500 of them today, including domes that get no natural light.

Getting a perfect grass playing field isn't cheap, however. Real Madrid probably has the most expensive field in sports, having spent around \$140 million for a grass field that uses PlayGreen Technology to grow and maintain the pitch. Trübenbacher says arguments that artificial turf is needed if a stadium wants to do more than host games is outdated. Using a database built over the past 20 years, PlayGreen has billions of data points on every conceivable variable around grass growth and maintenance, he says, from altitude to moisture to event load.

The business uses its data to create digital twins of facilities. A digital twin is a computer model so sophisticated it is highly accurate about future events—GE uses it to predict when locomotives, jet engines and power plant turbines will need maintenance, for instance. To an NFL owner, that means PlayGreen can predict how a field will react to a calendar full of concerts and games, suggesting adjustments to the field maintenance schedule to ensure the grass stays green.

The real hurdle these days isn't keeping the grass maintained under a full slate of events—it's convincing owners that it can be maintained.

“The biggest challenge is that there's a lot of missing knowledge, so people make decisions based on a technology expectation from five or 10 years ago,” Trübenbacher said. “I've had talks in the past weeks with owners of NFL clubs building new stadiums ... [and] they were under the impression they need to go for artificial because they want to do events. They're just not informed well.”

Still, he credits owners for listening on field options, even when it means considering equipment and expertise that will raise their operations costs. Ultimately, “Ownership aren't interested in pH values and irrigation and all those kind of things: They want to know ‘Is my field a three or a nine?’ That's exactly the transition we're doing for them.”