

#### PITCH TESTING ANEW APPROACH

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- Spotlight Stage 2 November 10:45
- Dean Tingley & Niall MacPhee



#### INTRODUCTIONS





**Dean Tingley**Sports Turf Consultant

An expert in build and maintenance of natural and hybrid, leading elite competition delivery



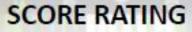
Niall MacPhee
Associate Director

Sports Labs group, a sports engineer with 16 years experience in technology and testing and player feedback

## WHAT WE WILL COVER

- Our data journey & data potential
  - Data Insights Objective
- What brings accuracy
- Actions (By person/machine)
- Trending and bench marking for you
- AAA Tour The power of insights
- The FIFA program







DATE COMPARISON



**INDIVIDUAL TEST** 







Harness the power of **self assessment** with **accuracy** in collection.

**Data – Insights – Action**. We talked about this, now we can do it to better effect.

For Al or machine learning we need data

#### SUMMARY REPORT

TURF QUALIT	ſΥ							PITCH ZONE SCO	ORE			
	Ranges	1	2	3	4	5	6	Average Total Pitch Score	Previous Average Pitch Score	Possible Rating	Awarded Rating	Awa Scor
	50-100			95	96	96	95	95		10		
	80 + 89									7	10	10
	60 - 79	- 17								5.		
	0 - 59								i.	0		
	0 - 4.9	4	2	2	*	3	2	1.6		4		10
	5-9.9									3.		
	10-14.9											
	>15									1(0)		
	22 - 30 (Optimum)	24 3	29	24	25	26	27	26	3	NA	N/A	N.
(Hybrid)	>50	120	130	120	.130	120	910	118.3		10		
	40 - 49									and the same	10	- 40
	30 + 39										-10	- 28
	0 - 29									3		
e Organic Debris (mm)	0-4.9		,	5		*	*	9.3	1	4		
	5-7.9									3	2	19
	8-11.9											7.7
	>12									-		
	90 - 100	80	80	80	80	80	80	80		10		
	80 - 89								1	-141-	4	
	70 - 79									12.		- 10
	0 - 69									0		



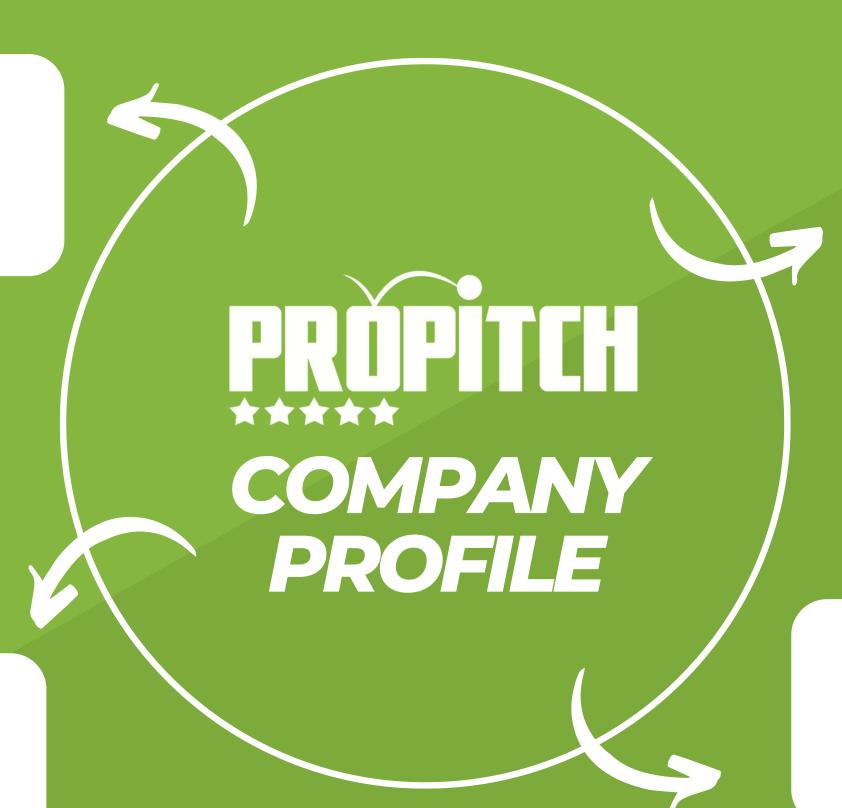
#### "If you can measure it you can manage it"

#### **Key Activities**

Sports Surface and technology experts, improving playing conditions

#### **Our People**

Leaders, driven and experienced with a balance of skill sets



#### **Inclusive model**

Interactive and built for all with knowledge sharing at the heart of our operations

#### Geographical Location

Building a global presence with our network and ability to travel with innovation

#### A leading FIFA research institute

#### **Key Activities**

Sports Surface and technology experts, improving playing conditions



#### **TESTING TECHNOLOGY FOR SPORT**

#### **Inclusive model**

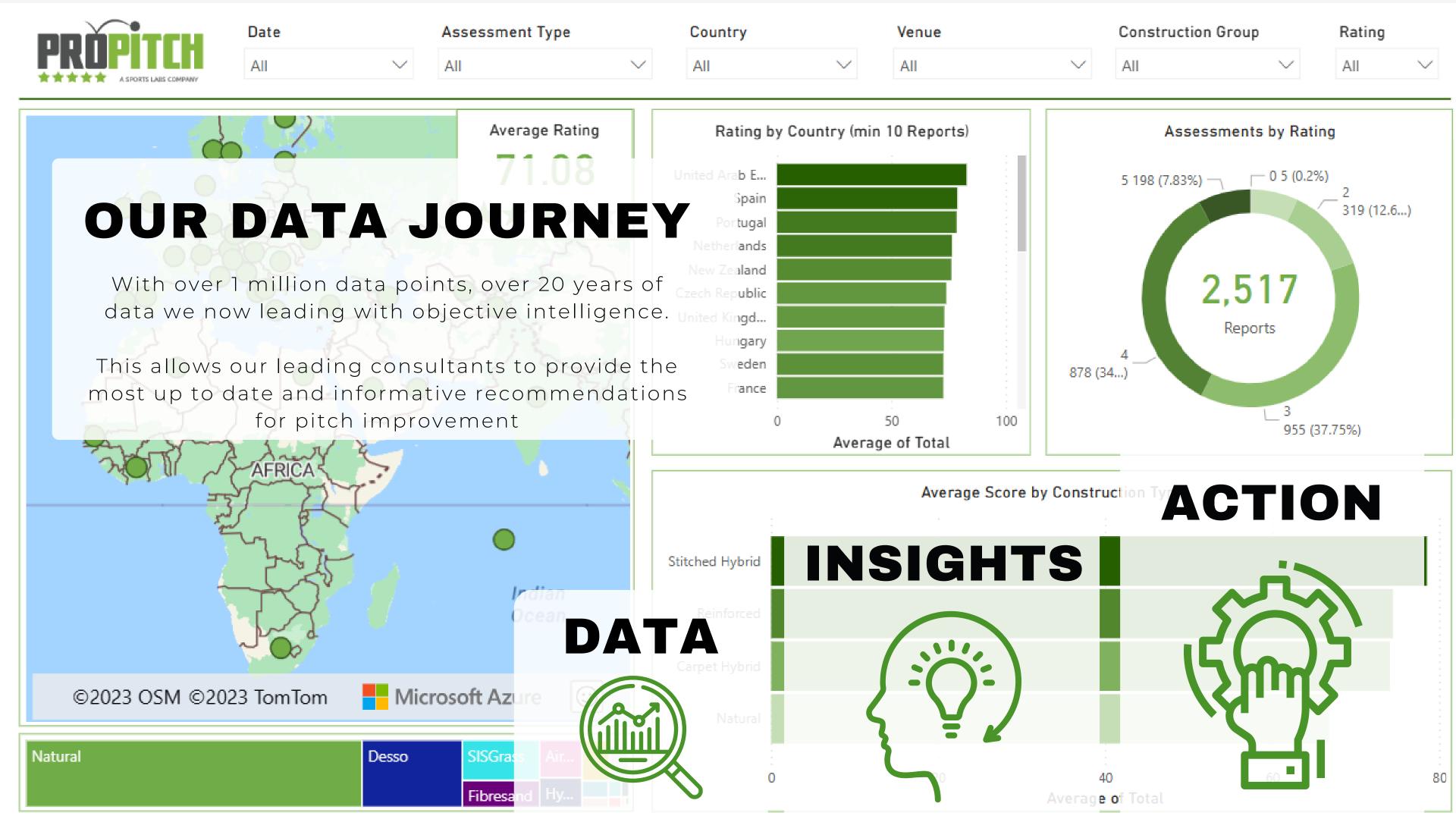
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#### **A VOLUNTARY COMMITMENT**

- Bringing player safety and experience back into play
- Construction
   A deep dive into more construction versus performance objective data
- All levels access for all
- To gain the knowledge not known in industry



#### WHAT BRINGS ACCURACY

- Have confidence and consistency
- Data is powerful when accurate
- Build up you pitch passport

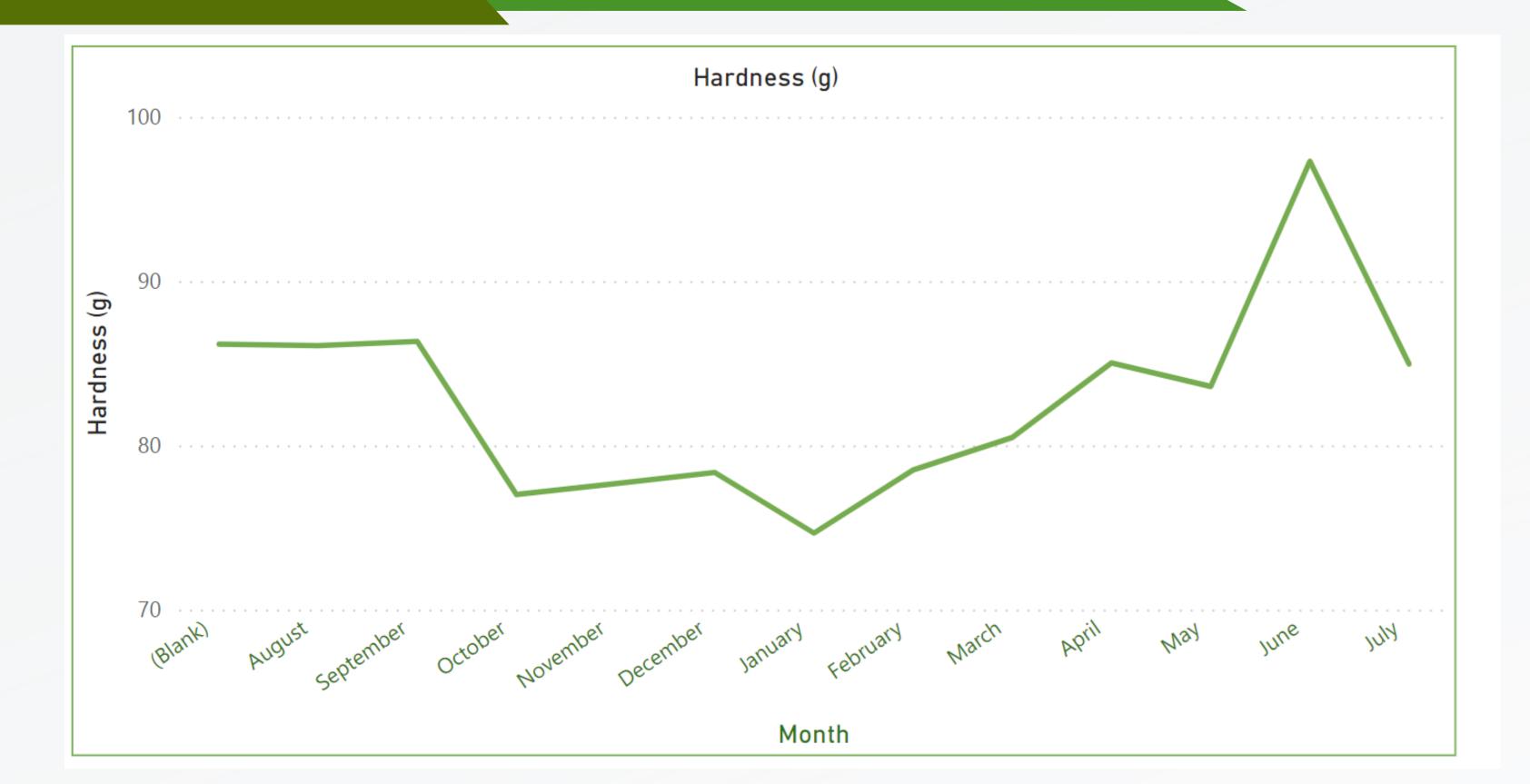




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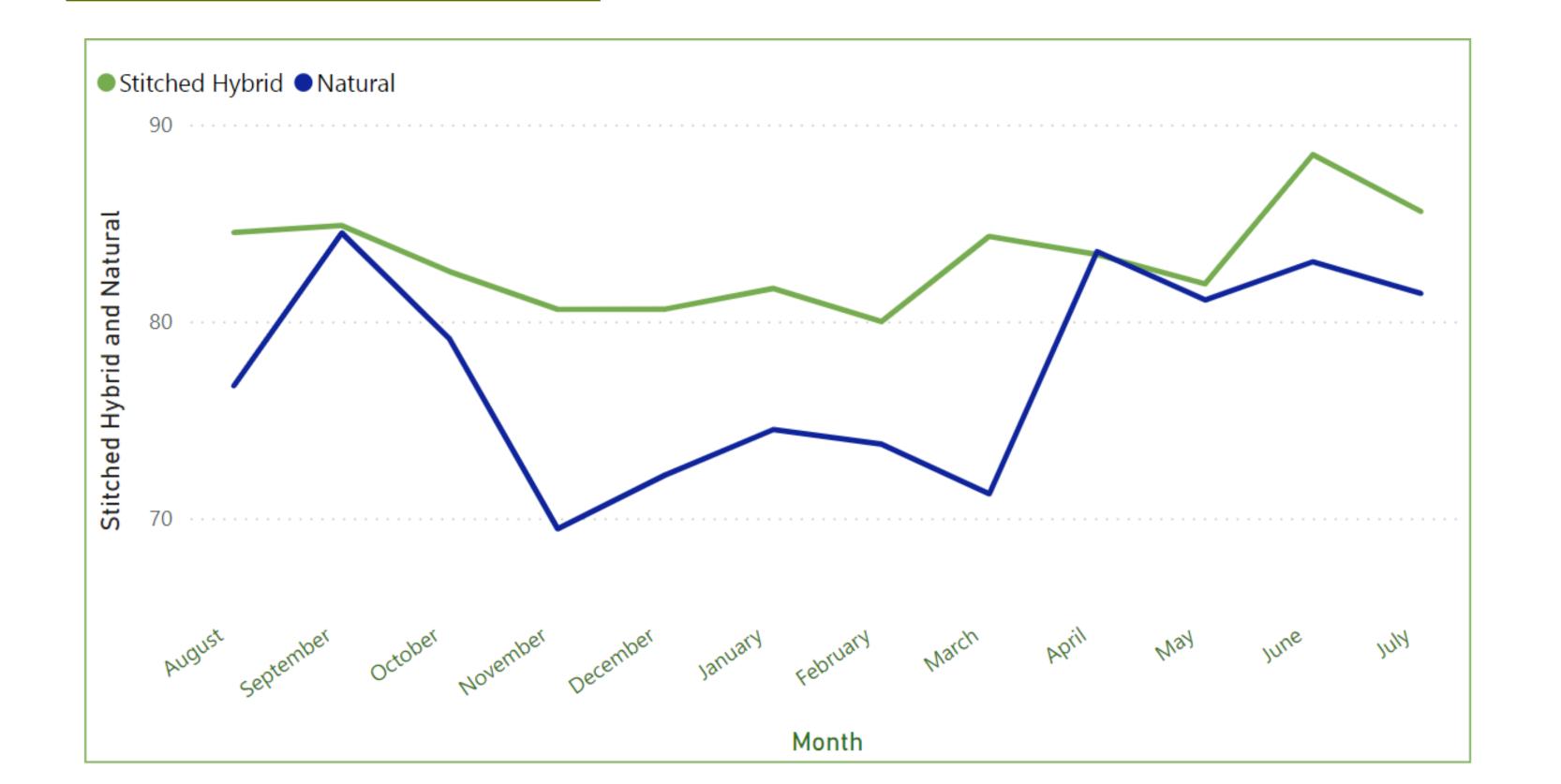


#### SURFACE HARDNESS





#### SURFACE HARDNESS





#### SURFACE DEFORMATION



1 Star

6.86

Deformation - AA (m...

2 Star

5.19

Deformation - AA (m...

3 Star

4.97

Deformation - AA (m...

4 Star

4.95

Deformation - AA (m...

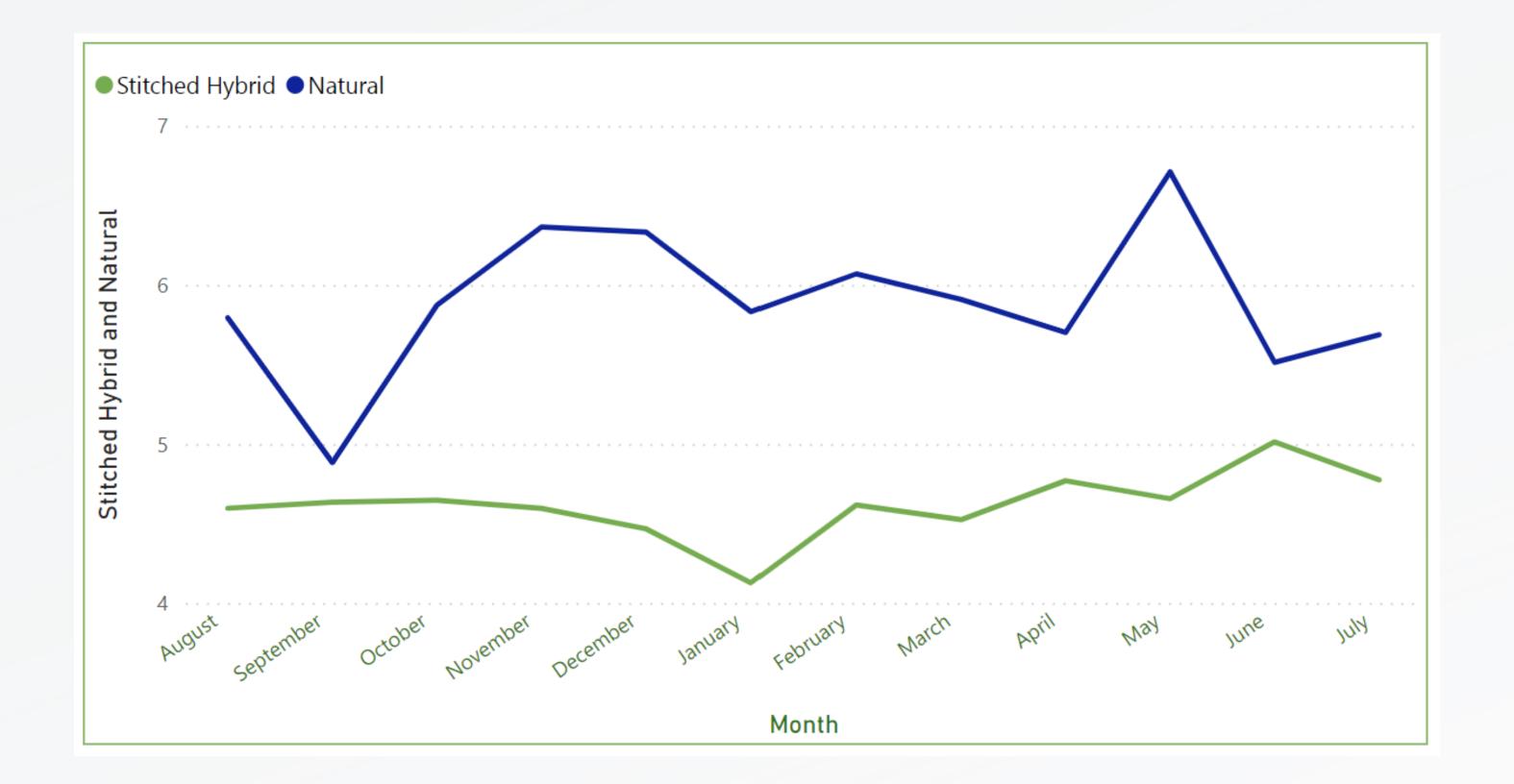
5 Star

4.82

Deformation - AA (m...



#### SURFACE DEFORMATION





#### MOISTURE READING



1 Star

32.52

Moisture Reading at ...

2 Star

24.56

Moisture Reading at ...

3 Star

24.40

Moisture Reading at ...

4 Star

22.63

Moisture Reading at ...

5 Star

22.51

Moisture Reading at ...

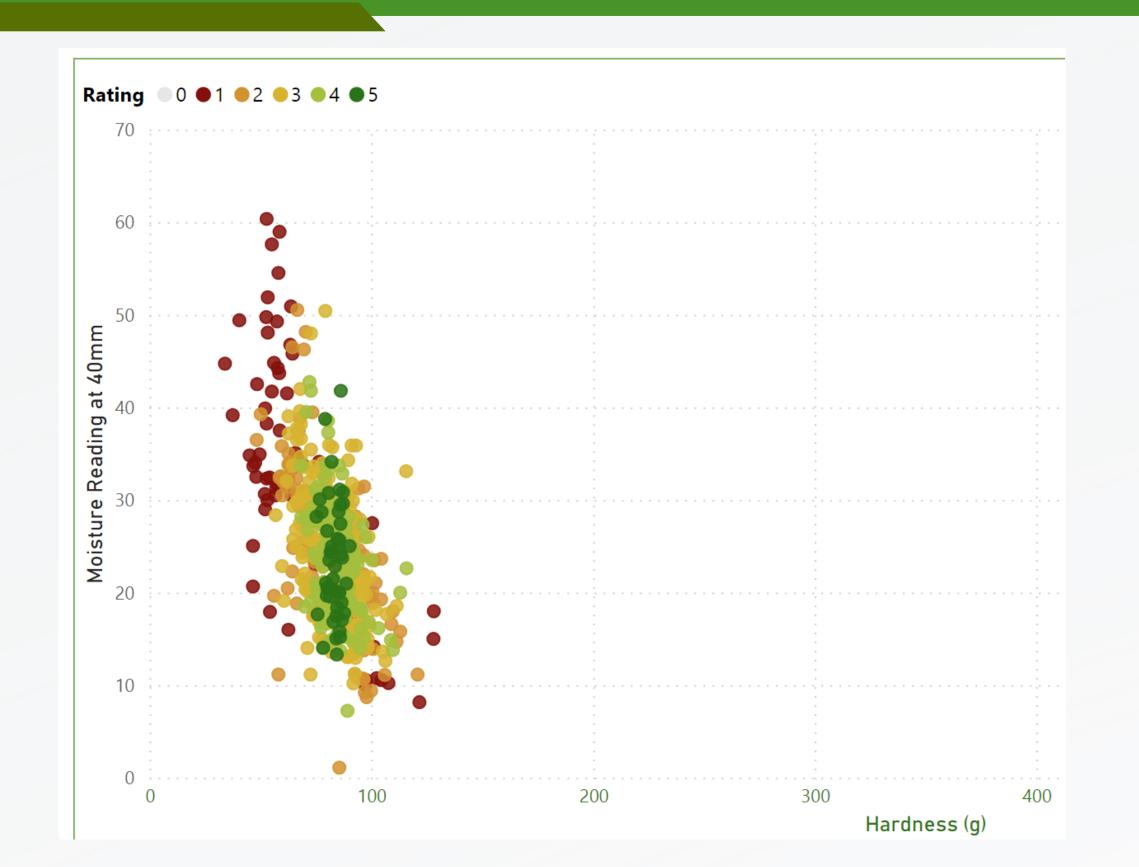


#### TRACTION (ROTATIONAL RESISTANCE)



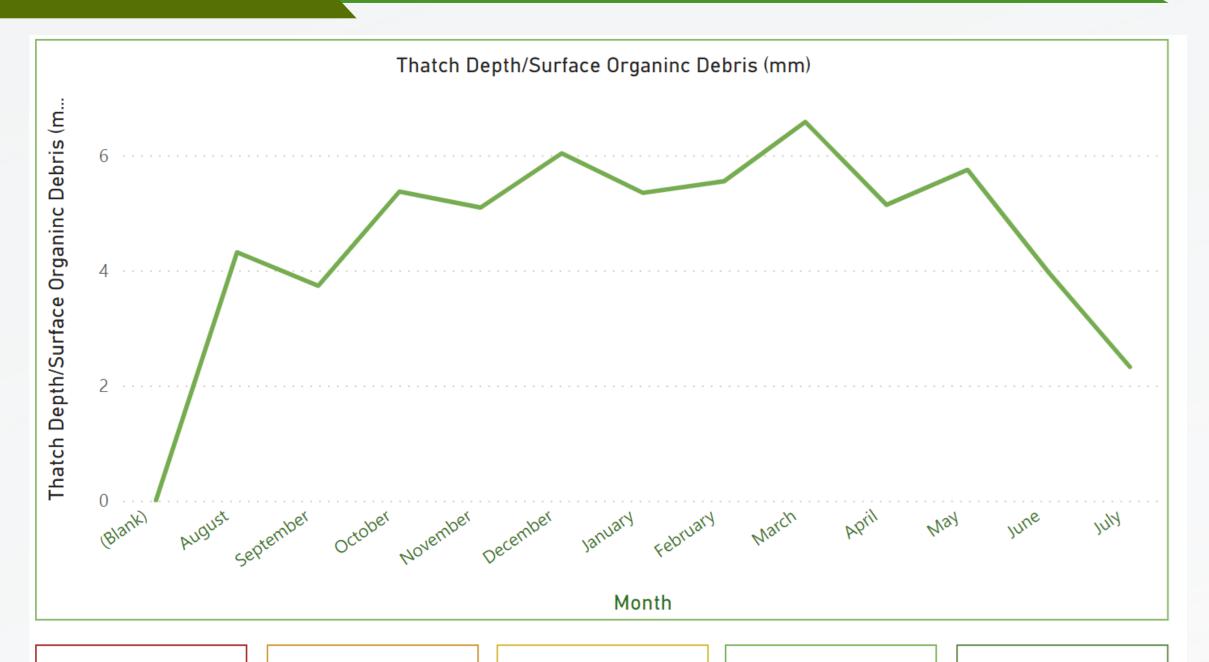


#### RATING - HARDNESS - MOISTURE





#### THATCH - ORGANIC DEBRIS



1 Star

12.40

Thatch Depth/Surfac...

2 Star

8.17

Thatch Depth/Surfac...

3 Star

4.72

Thatch Depth/Surfac...

4 Star

2.02

Thatch Depth/Surfac...

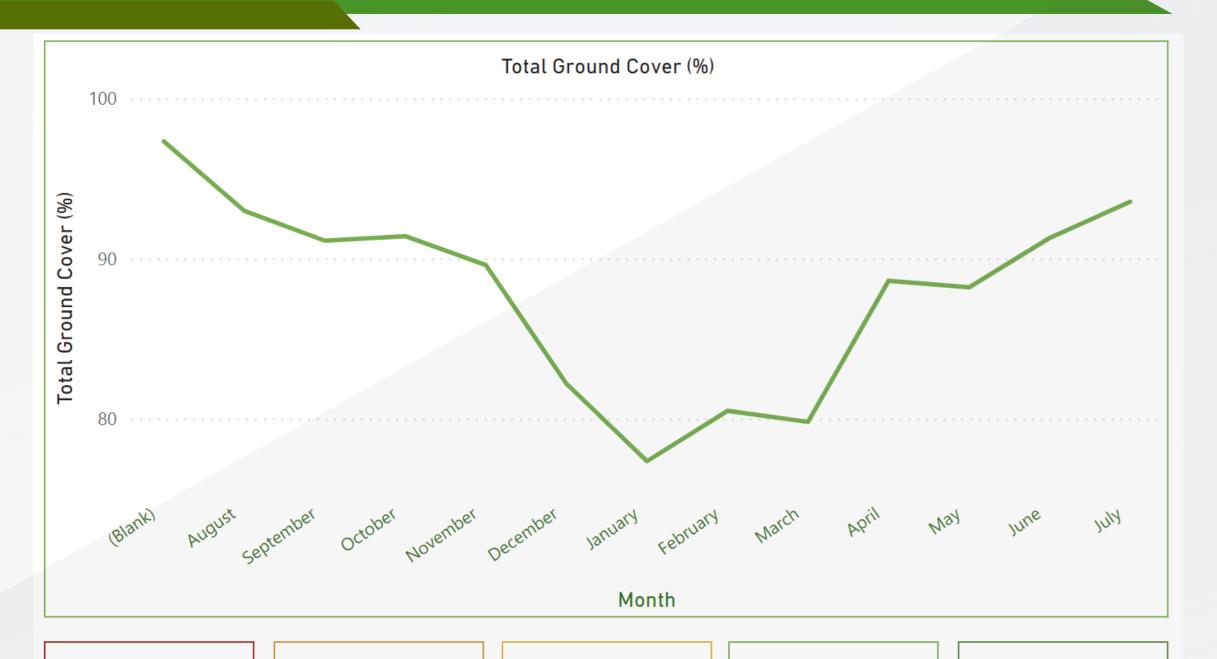
5 Star

1.13

Thatch Depth/Surfac...



#### TOTAL GROUND COVERAGE



1 Star

72.38

Total Ground Cover (...

2 Star

80.22

Total Ground Cover (...

3 Star

86.24

Total Ground Cover (...

4 Star

92.82

Total Ground Cover (...

5 Star

97.11

Total Ground Cover (...



#### TOTAL GROUND COVERAGE

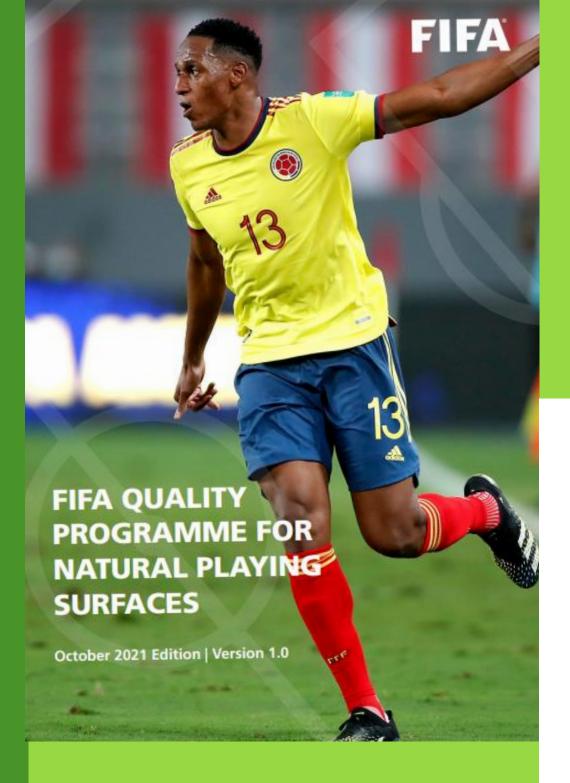




#### MASS ROOT DEPTH



### RAISING STANDARDS TOGETHER AROUND THE WORLD



FIFA Natural Turf Guidelines

### FIFA natural pitch rating system

Characteristic	Test method	Test apparatus	Full assessment – test positions	Reduced assessment – test positions
Performance	Vertical ball rebound	Vertical ball rebound	A, L, K, J, Q, H	optional testing
	Ball roll	Ball roll ramp	A, L, K, J, Q, H	optional testing
	Shock absorption	Advanced Artificial Athlete	All test locations (A to S)	optional testing
	Vertical deformation	Advanced Artificial Athlete	All test locations (A to S)	optional testing
	Rotational resistance	Lightweight rotational resistance apparatus	A, L, K, J, Q, H	optional testing
	Evenness	three-metre straightedge	All playing surfaces	All playing surfaces
Agronomy	Surface hardness	Impact tester	All test locations (A to S)	A, L, K, J, Q, H
	Compaction severity	Penetrometer	A, L, K, J, Q, H	optional testing
	Infiltration rate	Two concentric cylinders	A, L, K, J, Q, H	optional testing
	Normalised difference vegetation index (NDVI)	NDVI handheld device	All test locations (A to S)	optional testing
	Sward height	Prism	A, L, K, J, Q, H	A, L, K, J, Q, H
	Root depth	Steel ruler	A, L, K, J, Q, H	A, L, K, J, Q, H
	Thatch depth	Steel ruler	A, L, K, J, Q, H	A, L, K, J, Q, H
	Sward colour	Visual assessment	A, L, K, J, Q, H	A, L, K, J, Q, H
	Ground coverage %	Square frame	A, L, K, J, Q, H	A, L, K, J, Q, H
	Weed content %	Square frame	A, L, K, J, Q, H	A, L, K, J, Q, H
	Insect pests	Square frame	A, L, K, J, Q, H	A, L, K, J, Q, H
	Diseases	Square frame	A, L, K, J, Q, H	A, L, K, J, Q, H
	Volumetric soil moisture content	Moisture probe	A, L, K, J, Q, H	A, L, K, J, Q, H

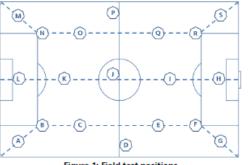


Figure 1: Field test positions

# FIFANPS & VEBINAR





- The FIFA program
  - Guidance documents
  - Quality Programme
- Webinar
  - FIFA Natural & Hybrid Pitch Testing
  - Wed 8th of November, 14.00 1500 GMs



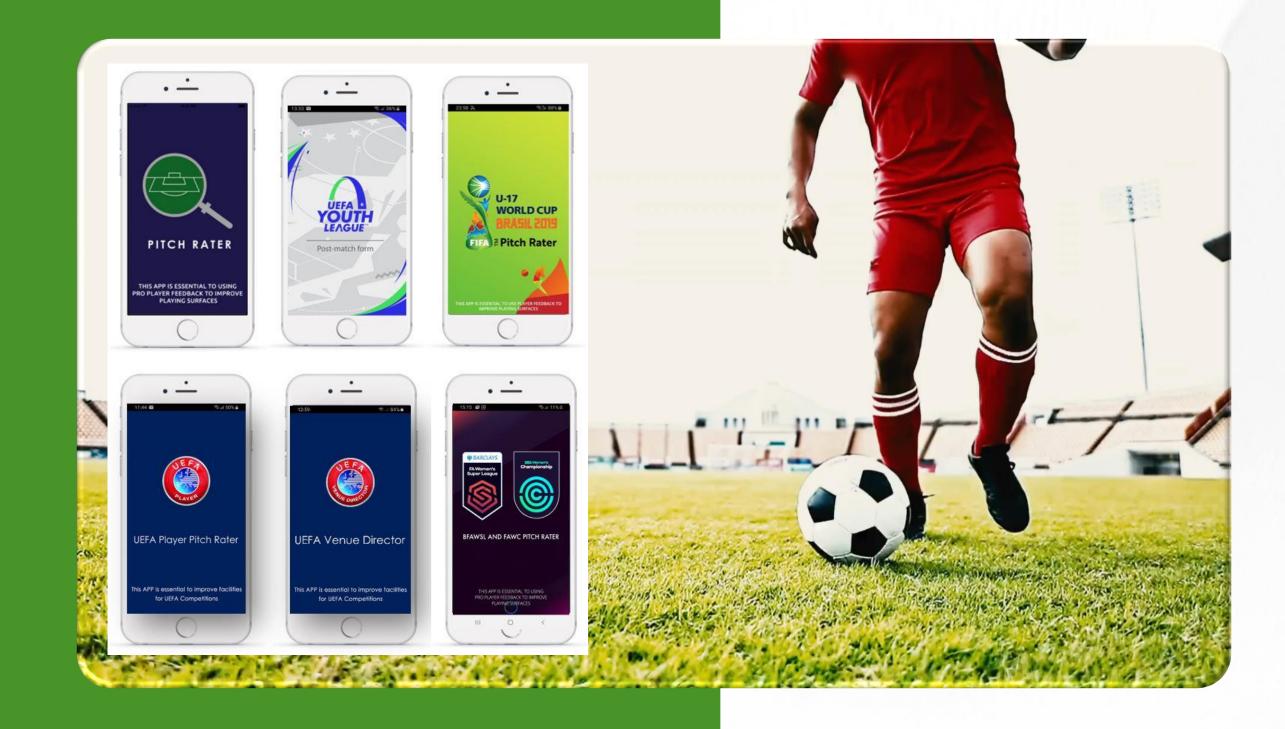
# RECONNECT WITH THE PLAYER

#### WHY

- Injury prevention
- Competitive advantage

#### HOW

- Accuracy in data
- Player feedback mechanisms
- Insights from correlation
- Innovation in testing and tolerances





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Get in touch to see where you can go



