

Quality Framework for Sports Technologies: Assessment Sheet

Based on the previously published White Paper on this topic - still available in open access

Quality Framework for Sports Technologies: Assessment sheet

→ Company name:

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→ Rater's name:

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→ Product name:

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→ Context of use:

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→ Type of technology:

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→ Other relevant information:

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→ Intended purpose of the product:

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Pillar A: Quality Assurance & Measurement

FEATURES	DEFINITION	ASSESSMENT	EVALUATION
#1 ACCURACY	The extent to which the tech's output relates to a current gold standard for similar measurement	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#2 REPEATABILITY	The extent to which the tech's output remains the same under similar test conditions; including procedure, users, measuring system, operating conditions and location, and replicated on the same or similar objects over a short period of time	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#3 REPRODUCIBILITY	The extent to which the tech's outputs of the same measure remain the same when carried out under changed conditions of measurement. These conditions may include but are not limited to: user; device or device components; location; condition of use; and time. Inter-rater reliability (different users) and stability (extended time-period, such as multiple months or a season) are considered components of reproducibility	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#4 SPECIFICATIONS	Specifications of the tech such as its capacity, sample rate and dimensions are clearly available to the user	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement

Pillar B: Established Benefit

FEATURES	DEFINITION	ASSESSMENT	EVALUATION
#5 CONSTRUCT VALIDITY	Ability of tech output to measure a specific area of interest, and/or differentiate between various groups or conditions	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#6 CONCURRENT VALIDITY	Extent to which the tech output relates to a previously validated measure administered at the same time	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#7 PREDICTIVE VALIDITY	Output from the tech has been shown to predict outcome of a future state	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#8 FUNCTIONALITY	The capability of the tech to provide functions which meet stated and implied needs, when the tech is used under specified conditions. Includes clear stating of intended limitations and delimitations	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement

Pillar C: Ethics & Security

FEATURES	DEFINITION	ASSESSMENT	EVALUATION
#9 COMPLIANCE	The extent to which the tech is aligned with relevant laws and regulation	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#10 PRIVACY	Extent to which the confidentiality of, and access to, certain information about the user is protected	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#11 OWNERSHIP	The ability to access, create, modify, package, derive benefit from, sell or remove outputs from the tech, as well as the right to assign these access privileges to others, is clearly defined	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#12 SAFETY	Freedom from conditions that can cause death, psychological or physical injury, occupational illness, damage to or loss of equipment or property, or damage to the environment	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#13 TRANSPARENCY	Recalls, transparent feature updates, honest and timely reporting available to users and governing bodies. Security vulnerabilities are reported, identified, assessed, logged, responded to, disclosed, and quickly and effectively resolved, where relevant with two-way feedback	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#14 ENVIRONMENTAL SUSTAINABILITY	The ability of the tech to positively impact, or reduce negative impact to the environment through means of substitution (foster a shift from non-biodegradable and non-renewable to biodegradable and renewable), prevention (reduce or eliminate deterioration and contamination through its use or production), or efficiency (in terms of its demand on energy and resources)	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement

Pillar D: User Experience

FEATURES	DEFINITION	ASSESSMENT	EVALUATION
#15 USABILITY	The extent to which a product can be learned and used by intended users to achieve specified goals with effectiveness, efficiency, and satisfaction in a specified context of use	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#16 ROBUSTNESS	The ability of the tech to operate correctly for its intended purpose across a wide range of operational conditions, and display a reasonable life expectancy	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#17 DATA REPRESENTATION	The interpretability, usefulness and attractiveness of methods used to represent information produced by the tech	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#18 CUSTOMER SUPPORT & TRAINING	The extent to which clear use guidelines are provided along with additional training and customer support	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#19 ACCESSIBILITY	The extent to which the tech is accessible and equitable to individuals from a range of different groups	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement

Pillar E: Data Management

FEATURES	DEFINITION	ASSESSMENT	EVALUATION
#20 DATA STANDARDIZATION	Data is presented, available in and convertible to a standardized format(s) in line with conventions across a variety of contexts	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#21 INTEROPERABILITY	Ability of the tech to physically connect to and logically communicate with another set of entities at foundational, structural, or semantic levels	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#22 MAINTAINABILITY	Extent to which the system's functionality remains stable with minimal disruption to the end-user whilst being upgraded, maintained, or serviced	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement
#23 SCALABILITY	The measure of a tech's ability to increase in performance and cost in response to changes in application and system processing demands	<input type="checkbox"/> Excellent with no useful further improvements possible <input type="checkbox"/> Strong with opportunities for improvement <input type="checkbox"/> Weakness needing improvement



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The Sports Tech Research Network



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White Paper online at strn.co



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